CONTACT INFORMATION
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Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
520-770-3500
http://www.azgs.az.gov
inquiries@azgs.az.gov

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James Doyle Sell Mining Collection

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ASARCO

Southwestern Exploration Division

May 1, 1989

J.D. Sell

Photographic Overview
Yarnell Project
Yavapai County, AZ

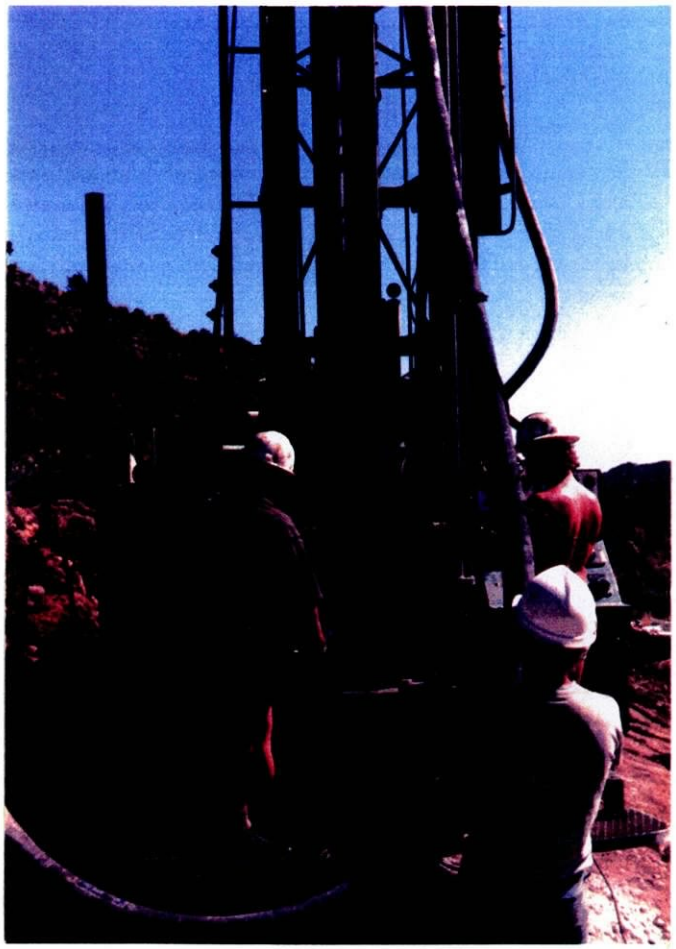
Attached are a number of photos taken during Phase I drilling at Yarnell. Most of the pictures taken are self-explanatory. The scenic overviews are looking north and south towards Yarnell and towards Congress from the probable pit location.

Mark

Mark A. Miller

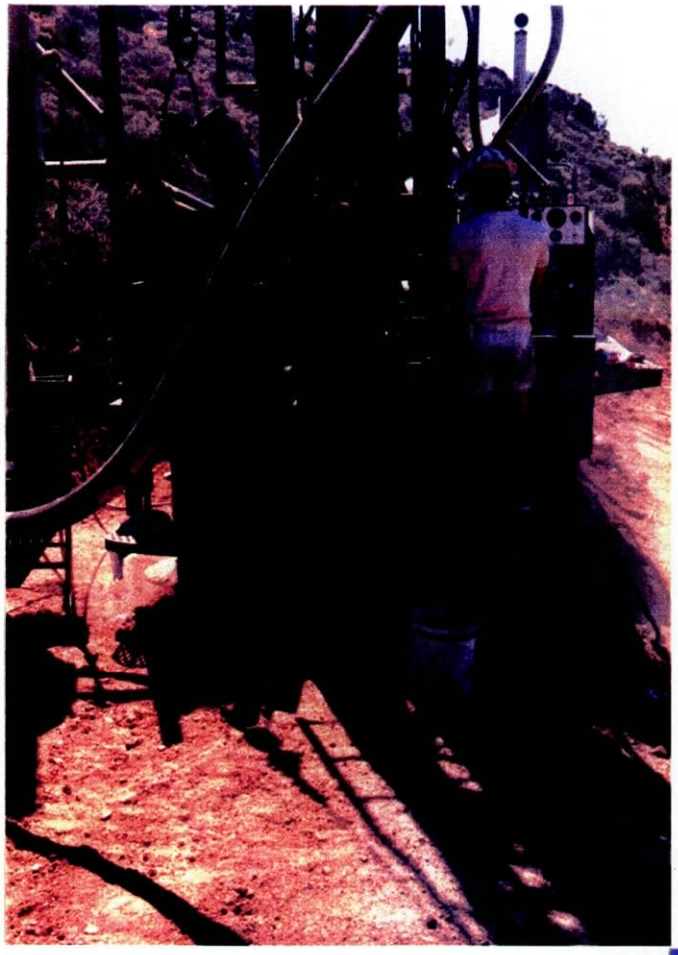
MAM:mek
atts.

cc: W.L. Kurtz
F.T. Graybeal



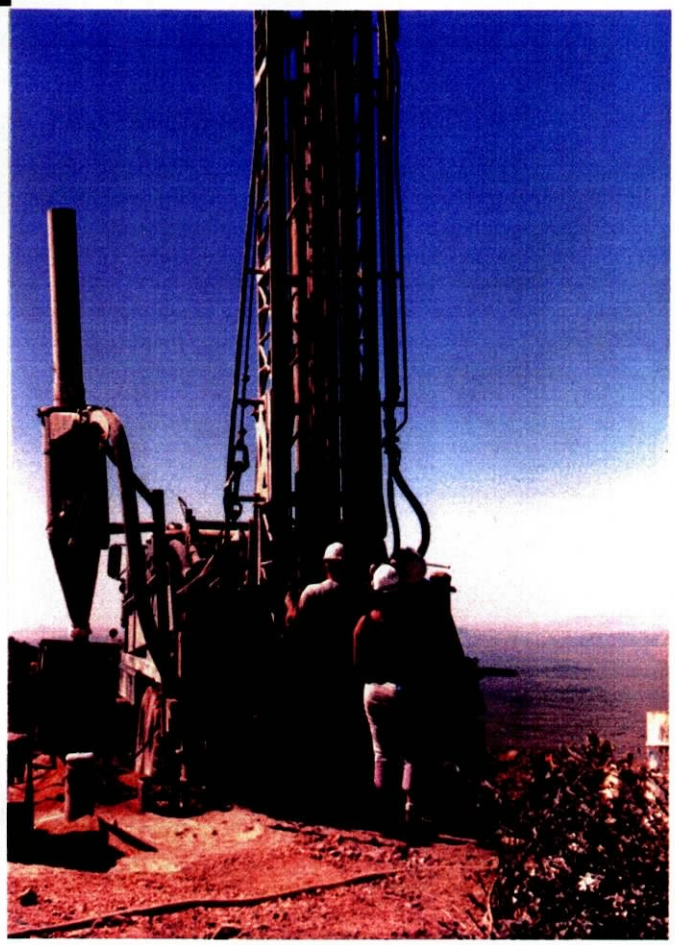
DRILL SITE YM-3

DRILL SITE YM-3

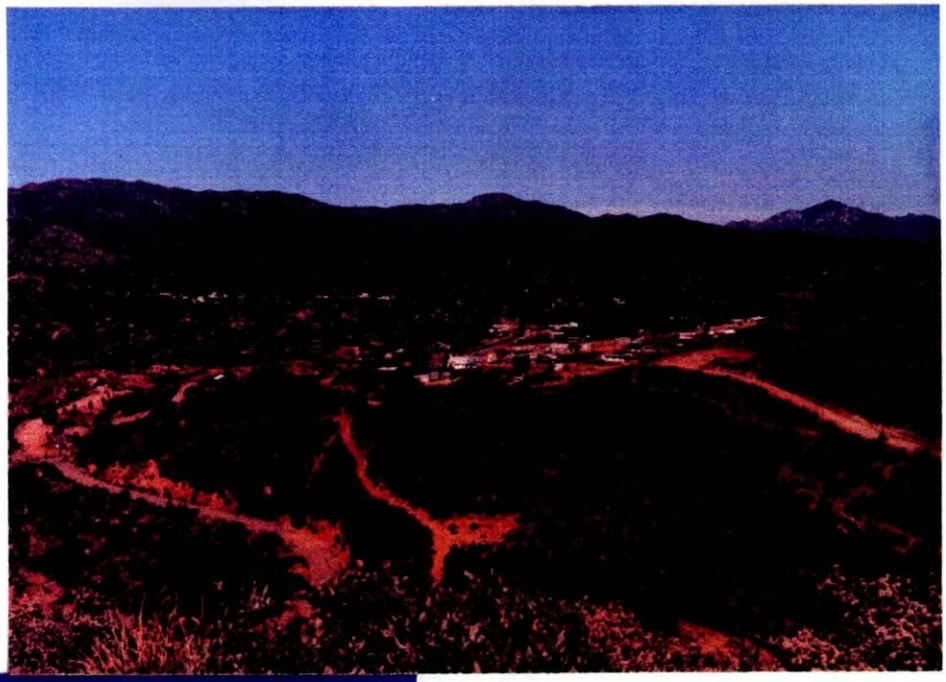


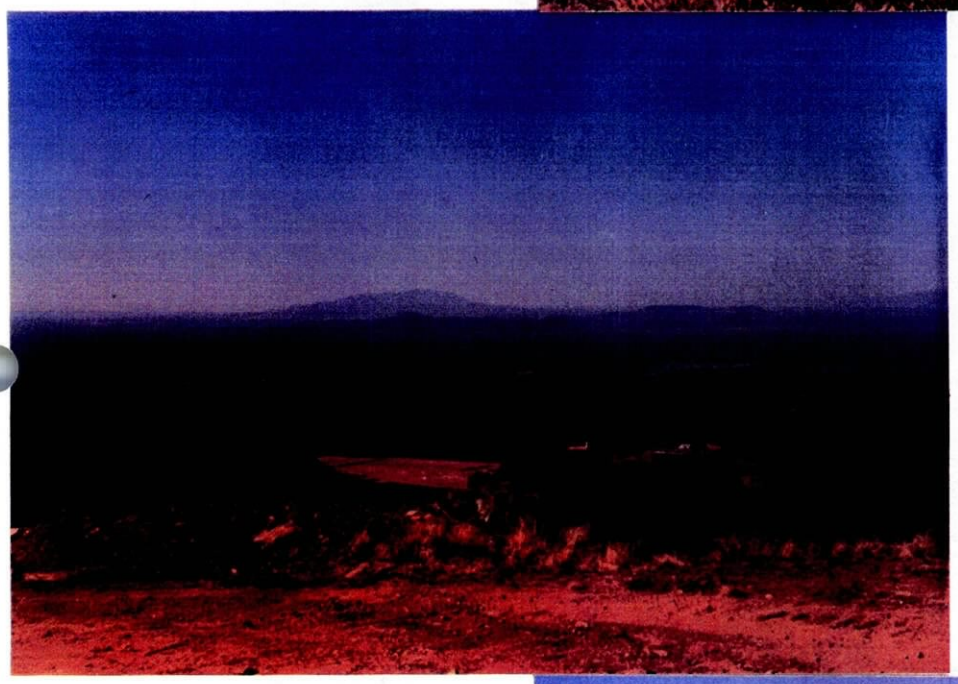
Collaring Hole on YM-3.

DRILL HOLE YM-5
Looking south towards
Congress Valley.



Glen Ellah
~~Yarnell~~ Town Site
looking NW from
proposed open pit area.

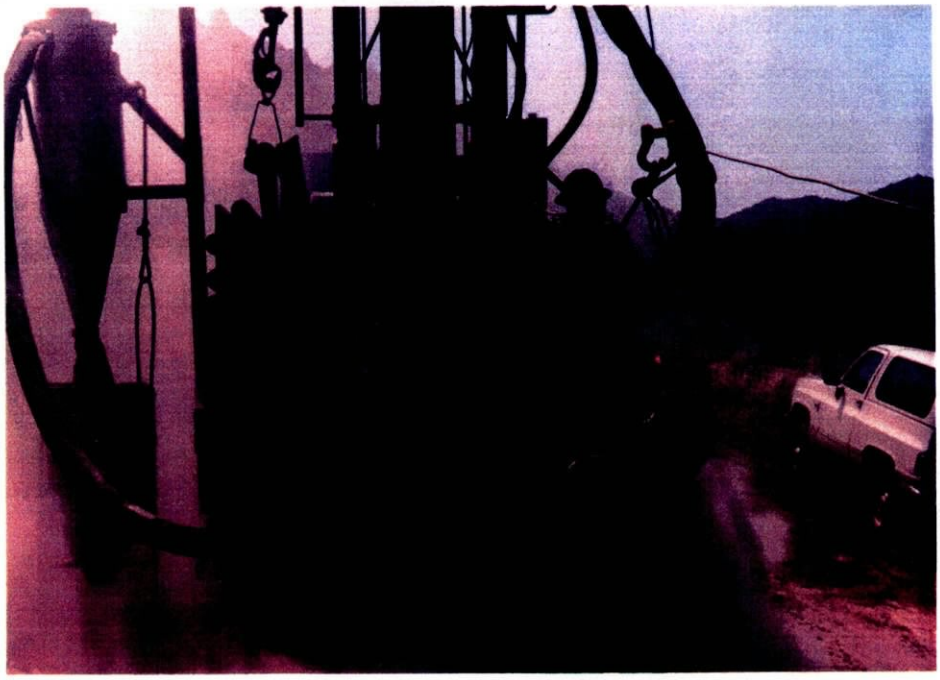




Congress Valley
looking south from
proposed open pit area.

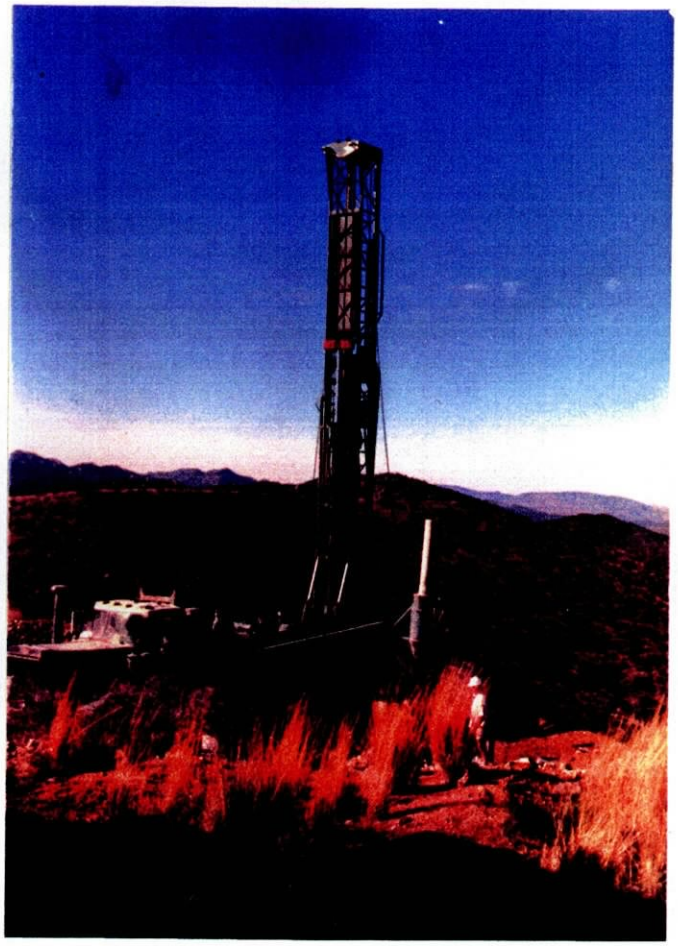
Drilling Services' rig on
Hole YM-3. Santa Fe &
Maricopa Co. Microwave
Towers in background.

Looking NE from road



Collaring Hole YM-3.

DRILL HOLE YM-2
looking north.



ASARCO

Exploration Department
Southwestern United States Division

May 2, 1989

Mr. Michael D. Philpot
NORGOLD RESOURCES INC.
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

Yarnell Project
Expenditures

Dear Mike:

We have spent approximately $100,000 to date at Yarnell. This includes all land payments, drilling, assaying, etc.

Regards,

Mark A. Miller
Geologist

MAM:mek

cc: W.L. Kurtz
J.D. Sell

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

ASARCO

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ASARCO Southwestern Exploration Division

May 2, 1989

J.D. Sell

Yarnell Project
Yavapai Co., AZ

SUMMARY & RECOMMENDATIONS

Mapping and detailed rock sampling of surface and underground exposures and 3022' of reverse circulation drilling in nine holes have been completed on the Yarnell Project. A 12-85' true thickness of oxidized material at .048 opt Au is indicated with three of the holes showing lower grade zones immediately above the +.04 zone (95' @ .018, 30' @ .027, 195' @ .021). Also several of the holes have scattered .01-.02+ zones which could be segregated during stripping to lower the overall stripping ratio. Average stripping of the +.04 zone is +4:1 with an early strip at ± 1:1. Probability of developing 4 million tons is good per W.L. Kurtz' memo (4/18/89) and as the zone is open on three sides (down dip and along strike) a 6-8 million ton deposit is possible. Preliminary bottle roll tests (Attachment D) suggest favorable heap leach characteristics. Further test work is in progress.

A 10,000', 25 hole drilling program is recommended to further define and expand the "Indicated" ore zone and test the potential ore zone (Figure 2). Several of the up dip holes should be taken 100-200' deeper than the rest to check for any lower mineralized zones as suggested by mapping and rock chip sampling. Several core holes in addition to reverse circulation drilling would provide material for metallurgical testing and also aid in the understanding of alteration, mineralization and structure. These holes should be drilled as needed. A proposed budget of $170,000 for 10,000' of reverse circulation drilling is recommended to test the extent of this mineralization. Additional expenses of $90,000 will cover surveying drill hole collars and underground workings as accessible, additional metallurgical testing, diamond drilling, legal fees, etc. Approximately $262,000 will cover this work.

INTRODUCTION

The Yarnell Mine is located in Yavapai County within one mile of the community of Yarnell (Figure 1). Topography is moderately rugged with high ridges and deep valleys. Temperatures at Yarnell are similar to those of Prescott and usually 10-15° lower than Wickenburg. Gold mineralization was discovered at Yarnell in the 1890's and has been mined intermittently since with total production in the range of 250,000 T at .1-.3+ opt Au from stopes 5-15' high along the main structure (Yarnell Fault). The property was mined from 1940-42 by the Winslow Mining Company and a cyanide agitation mill was erected on the property. The mine was shut down in the 1940's by the Gold Mine Closure Act and was never reopened. A small heap leach operation attempted to operate in the early 1980's, but was unsuccessful and the property has been idle since.

LAND STATUS (Figure 1)

The Yarnell Project area consists of ~1236 acres which currently includes 5 patented and 49 unpatented lode mining claims. The 4 patented and 4 of the unpatented claims are owned by Al Roman and optioned to Norgold Resources; a Vancouver junior mining company. A portion of the remaining claims were restaked by Asarco (30 YAR claims) by their agent Joe Shearer and the remaining 15 claims were received through other options as described below (Layton, Heinztelman). The restaking was necessary due to irregularities with the former claims (Sun, Y) which were staked by Don Jenkins, agent for Norgold Resources. All of the claims are now included within a joint venture agreement between Asarco and Norgold Resources.

Additional options have been obtained on the Layton claims which includes the Victoria Claim Group and the Heinztelman patented Mother claim. First year payments on both of these claim groups are $15,000 in total. (Asarco will assume all option payments.) Sante Fe has agreed to sell the mineral rights only on their property 1.72 acres within mineralized zone for $10,000. A check with Transfer Agreement has been sent to them for approval.

Two small microwave communication towers , Maricopa County and Santa Fe Railroad, are located on top of Yarnell Hill. Cost to move these towers should not exceed $50,000 each. Norgold is negotiating to find a location for the towers.

A Joint Venture Agreenment between Asarco and Norgold has been formed and first year terms to Asarco are:

$10,000 to Norgold upon signing letter agreement (done)
$15,000 to Norgold on 3/6/89 to continue option (done)
$15,000 to Norgold on 7/1/89
$15,000 to Norgold on 10/1/89
$10,000 to Al Roman (underlying land owner) through 12/31/89 at $1,000/month
$100,000 to Al Roman (Western Building, etc.) on January 1, 1990

Norgold is to be contacted by October 1, 1989 as to whether Asarco will make the $100,000 payment.

WORK COMMITMENTS

Complete 3000' of drilling by 7/1/89 (done)
Complete $250,000 of work on or for the benefit of the property between 7/1/89 - 7/1/90.

Phase I Drilling Program

3000' Of drilling was proposed and completed to test the down dip and strike extension of the mineralization as known by the mapping and sampling of the open cut and surface outcrops (where +50' at .04+ .05 opt Au was found) and mapping and sampling of the underground workings where 300' (~150' true thickness) at .026 opt Au was found. Locations of the nine drill holes are shown on Figure 2 and cross sections with assays are shown on Figures 3, 4, 5.

GEOLOGY & MINERAL POTENTIAL

The host rocks exposed in the Yarnell Mine area are Precambrian (1400 my) medium to coarse grained biotite granites/granodiorites locally with K-feldspar phenocrysts. Locally seen are diorite xenoliths up to several tens of feet in size. Gold mineralization occurs within a ±300' section of hydrothermally altered granites/granodiorites (Attachment A).

The Yarnell Fault appears to be the likely ore control on gold mineralization. This is +6' thick N40-60°E 35°NW dipping structure which is silicified, strongly argillic and gougy. Continuity of the structure is very good as seen in cross sections X, Y & Z (Figures 3-5) where +800' of dip length have been confirmed by drilling and the possibility of a +1000' dip length is good. The Yarnell Fault has been referred to by some as an epithermal vein based upon the mineralogy and alteration assemblege. However, this idea is subject to discussion.

Compilation of all data; (mapping with sampling, drilling, etc.) shows that gold mineralization appears to straddle the Yarnell Fault occurring both in the hanging wall and foot wall of the fault zone (Figures 3-5). All drill holes should be taken 75-100' below the fault to guarantee that the entire mineralized section is tested.

Based upon surface mapping and rock chip sampling there is indication that multiple stacked zones may exist (rock chip samples #104, 105, Attachment A, B). Also the bottom 5' of YM-1 at 215-220' is .04 opt Au. The hole in the open cut will test this anomaly.

Attachment A & B show surface geologic mapping, rock chip sampling, with assays. Attachment C shows individual drill hole sections with all assays included. Figures 3-5 are representative cross sections X, Y, & Z. All underground mapping with individual assays is filed at the Tucson Office.

Alteration

Alteration varies from propylitic to argillic and appears to be time related to the Yarnell Fault although the complete relationship is unclear. Argillic alteration (clay minerals) is seen in close proximity to the Yarnell Fault and usually in the hanging wall of the fault structure. This same relationship is seen in the underground workings (main tunnel), the open cut, and the "Fly" adit. As one moves vertically away from the fault, the alteration zones grade from argillic to quartz-sericitic and finally propylitic. The absence of biotite in the rocks indicates that hydrothermal alteration has occurred and may define the surface expression of the gold mineralized zone. Alteration zonation is definitely a mappable feature and will be broken out with continued mapping and used as a guide to ore.

Overall the strike length of interest along the Yarnell Fault is in excess of 2000'. The past drilling shows that alteration and mineralization extends +800' down dip with no suggestion of termination.

J.D. Sell

May 2, 1989

Mineralization

Mineralization as seen in both the surface outcrops, underground mapping and reverse circulation drill holes consists of various forms of iron oxides: as pyrite pseudomorphs usually 1-2% locally up to 5%; maroon hematite staining usually in close proximity to pyrite casts (limonite) and specular hematite (usually 1-3%). There is also rare occurrences of copper oxides--as malachite usually associated with quartz veins.

Within the gold mineralized zone are moderate abundant limonite filled fractures usually following a pre-existing fracture system. These fractures are both conformable to the Yarnell Fault structure and on N10°E 70°NW dip X N70°W vertical dip. Character samples should be taken along these limonite zones to see if they are carrying gold as fracture related only or as disseminated values between fractures. (The underground mapping data is on file in Tucson.)

It appears from the results of the R.C. drilling that the occurrence of specular hematite in the 1-3% range in association with 4-6% limonite is a good indicator of ~+.02 opt Au. The existence of red/maroon hematite and py/limonite casts raises the grade even higher.

Mark A. Miller

MAM:mek
Attachments

cc: R.L. Brown
W.L. Kurtz

J.D. Sell

May 2, 1989

ESTIMATED COSTS - PHASE II PROGRAM

Drilling	
10,000' Drilling at $9.35/ft.	$ 93,500
Direct Drill Costs	
1200' HQ Diamond Drilling	30,000
Assaying	
10,000' Drilling Assays @ $3.00/ft./assay (includes check assays)	30,000
Land Payments	
Norgold Payment July 1, 1989	15,000
Western Bldg. thru Sept. 1989	5,000
Initial Land Payments for Pending Options	15,000
Living Expenses	4,000
Vehicle Expense	1,500
Salaries	
1 Geologist for 3 months	12,000
1 Sample Helper for 2 months drilling	3,000
Drafting Costs	
Site Preparation	
30 Sites @ $300/site	9,000
Supplies	
Sample Bags	1,200
200 Chip Boxes @ $2.00/box	400
4 6" Column Leach Tests	5,000
Underground mapping, surveying of old workings (as accessible)	7,000
Survey Drill Holes (collars)	3,000
Legal	5,000
Total	$240,000
Plus contingency @ 10%	$262,000

J.D. Sell

May 2, 1989

LIST OF ATTACHMENTS *

Figure 1	Land Status Map 1" = 2000'
Figure 2	Drilling Progress with Proposed Drill Holes Cross Section lines 1" = 200'
Figure 3-5	Attachments - Cross sections X, Y, Z 1" = 200'
Attachment A	Geology Map 1" = 200'
Attachment B	Surface and Underground Gold Samples in opt 1" = 200'
Attachment C	Drill Hole Logs with Assays and Drill Hole Sections @ 1" = 100'
Attachment D	Bottle Roll Tests

* See bound volume

Jim,
For your Info
Mark

1710-609 GRANVILLE ST.
P.O. BOX 10363 STOCK EXCHANGE TOWER
VANCOUVER, B.C.
V7Y 1G5
(604) 683-7265
FAX (604) 683-5306

George Cross News Letter

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MAY 2, 1989

No Need to Type

VDS

RECEIVED

MAY 3 1989

EXPLORATION DEPARTMENT

Copy made for WLK 5/23/89 - mch

Copy for WLK

JH Fred

Yarnell Project Check List

Previous Memo

WLK

JDS.

Mark Wolter dropped this off — he apparently picked it up from Jackson last year.

I chatted with Don Crowell and 1) he was unaware of this File Memo, 2) he agreed with our selection (actually it was Skyline selection) of Net-Con for the Yarnell test, 3) he agrees that -10 mesh is the first approximate and NOT the -100-200 mesh crush as recommended by Jackson, & 4) he agreed that the next step is the 24-48-72 hr test that is underway, & 5) yes, he needs bulk material such as core for the next column leach tests if they are to be, & 6) he is surprised that they did not get a copy direct from Technical Services Center.

JDS

TDS

ASARCO Incorporated
MAY 8 1989
SW Exploration

Norgolds AZ Lawyer:

Lee Smith 7109 No. Oracle Rd
797-0777

ASARCO Incorporated
MAY 8 1989
SW Exploration

Moat: (Telephone — 5/10/89) w/ WLK
Will meet SF + Warnock people next week
Complete Phase II + metallurgy first,
then move
ie, plenty of time as:
drilling
metallurgy
cost figures
water supply
+ EIS etc, for

SF - says 6 months to move,
Layton dies 5/8/89

Layton document to be recorded.

Concern: Where does Stage II go! Where are you North
signs!! Norgold tax people need to clear found
but not terms — may be several weeks yet.
But letter agreement is valid + thus should have
no relation on formal agreement.

1 Set assay sheet clean

JDS

ASARCO

Southwestern Exploration Division

May 10, 1989

M.A. Miller

Yarnell
Congress Mine

Attached is Mr. Kurtz's note on the Alvarado Mine. As this is within our 3 mile zone of interest with Norgold, you should put the Alvarado on your look-see-report list.

Also all the other various veins within the area, and perhaps slightly beyond.

After all, another 25,000-50,000 ounces from heap-leach elsewhere could be fed to the Yarnell carbon circuit and help out the total ounces recovered with little added manpower.

James D. Sell

James D. Sell

JDS:mek
Att.

cc: W.L. Kurtz

ASARCO

Exploration Department
Western USA

J.D.

May 10, 1989

J.D. Sell
Tucson Office

Yarnell
Congress Mine

Jerry Haggard, whose firm is attorney's for Pope Mining Company (operates the Alvarado Mine and is a subsidiary of Scarborough (?) Oil) reports the Pope is looking to dispose of the Alvarado. I reported such to Mike Philpot.

Philpot reports that a junior Canadian is thinking of acquiring the Congress Mine and building a mill. If so, all the veins nearby may become of interest.

WLK:mek

WLK
W. L. Kurtz

ASARCO

Exploration Department
Southwestern United States Division

May 11, 1989

Mr. Michael D. Philpot, Director
Norgold Resources Inc.
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

Yarnell Project
Phase 1 Expenditures
Yavapai County, AZ

Dear Mike:

Exploration costs for Phase 1 are as follows:

3000' Drilling and Assaying	$35,000
Rock Chip Sampling and Mapping	10,000
Salaries and Living Expenses & Incidentals	15,000
Surveying	10,000
Total	$70,000

These are reasonable expenses less land payments and lawyers' fees, etc.

I hope this will serve your needs.

Regards,

Mark A. Miller

MAM:mek

cc: J.D. Sell
W.L. Kurtz

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

ASARCO

Southwestern Exploration Division

JDS

May 11, 1989

R.L. Brown
New York Office

Yarnell Project
EA-0444
Yavapai County, AZ

Mr. Mark Miller has compiled his work on the Yarnell Project which includes nine reverse air circulation drill holes. As reported, the nine holes indicated an average thickness (±55 feet) and grade (0.048 opt) of gold mineralization for open pit considerations.

The preliminary bottle roll tests also indicate heap-leaching recovery methods.

With the securing of the Layton and Heinztelman claims, the land package now under control by Norgold is sufficient to contain the operation, but additional lands with houses may have to be secured for protection from blasting and visual intrusion (two of these houses are shown within the Asarco unpatented claim block in the northwest portion).

Mr. Miller will add an addendum later to show the Yarnell Fault and the extent of altered granite on the drill sections and the cross sections.

As you will note, Mr. Miller now believes this Phase II drilling will be slightly higher in cost than what was requested by W.L. Kurtz in his request/Form 302-MB of April 19, 1989. However, I will concur with Mr. Kurtz's recommendations and after your consideration of Mr. Kurtz's memo and the attached report by Mr. Miller, I look forward to the approval for the Phase II program.

James D. Sell

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JDS:mek
Att.

cc: W.L. Kurtz
M.A. Miller

ASARCO

Southwestern Exploration Division

JDS

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New York Office

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Complete $250,000 of work on or for the benefit of the property between 7/1/89 - 7/1/90.

Phase I Drilling Program

3000' Of drilling was proposed and completed to test the down dip and strike extension of the mineralization as known by the mapping and sampling of the open cut and surface outcrops (where +50' at .04+ .05 opt Au was found) and mapping and sampling of the underground workings where 300' (~150' true thickness) at .026 opt Au was found. Locations of the nine drill holes are shown on Figure 2 and cross sections with assays are shown on Figures 3, 4, 5.

GEOLOGY & MINERAL POTENTIAL

The host rocks exposed in the Yarnell Mine area are Precambrian (1400 my) medium to coarse grained biotite granites/granodiorites locally with K-feldspar phenocrysts. Locally seen are diorite xenoliths up to several tens of feet in size. Gold mineralization occurs within a ±300' section of hydrothermally altered granites/granodiorites (Attachment A).

The Yarnell Fault appears to be the likely ore control on gold mineralization. This is +6' thick N40-60°E 35°NW dipping structure which is silicified, strongly argillic and gougy. Continuity of the structure is very good as seen in cross sections X, Y & Z (Figures 3-5) where +800' of dip length have been confirmed by drilling and the possibility of a +1000' dip length is good. The Yarnell Fault has been referred to by some as an epithermal vein based upon the mineralogy and alteration assemblege. However, this idea is subject to discussion.

Compilation of all data; (mapping with sampling, drilling, etc.) shows that gold mineralization appears to straddle the Yarnell Fault occurring both in the hanging wall and foot wall of the fault zone (Figures 3-5). All drill holes should be taken 75-100' below the fault to guarantee that the entire mineralized section is tested.

Based upon surface mapping and rock chip sampling there is indication that multiple stacked zones may exist (rock chip samples #104, 105, Attachment A, B). Also the bottom 5' of YM-1 at 215-220' is .04 opt Au. The hole in the open cut will test this anomaly.

Attachment A & B show surface geologic mapping, rock chip sampling, with assays. Attachment C shows individual drill hole sections with all assays included. Figures 3-5 are representative cross sections X, Y, & Z. All underground mapping with individual assays is filed at the Tucson Office.

Alteration

Alteration varies from propylitic to argillic and appears to be time related to the Yarnell Fault although the complete relationship is unclear. Argillic alteration (clay minerals) is seen in close proximity to the Yarnell Fault and usually in the hanging wall of the fault structure. This same relationship is seen in the underground workings (main tunnel), the open cut, and the "Fly" adit. As one moves vertically away from the fault, the alteration zones grade from argillic to quartz-sericitic and finally propylitic. The absence of biotite in the rocks indicates that hydrothermal alteration has occurred and may define the surface expression of the gold mineralized zone. Alteration zonation is definitely a mappable feature and will be broken out with continued mapping and used as a guide to ore.

Overall the strike length of interest along the Yarnell Fault is in excess of 2000'. The past drilling shows that alteration and mineralization extends +800' down dip with no suggestion of termination.

J.D. Sell

May 2, 1989

Mineralization

Mineralization as seen in both the surface outcrops, underground mapping and reverse circulation drill holes consists of various forms of iron oxides: as pyrite pseudomorphs usually 1-2% locally up to 5%; maroon hematite staining usually in close proximity to pyrite casts (limonite) and specular hematite (usually 1-3%). There is also rare occurrences of copper oxides--as malachite usually associated with quartz veins.

Within the gold mineralized zone are moderate abundant limonite filled fractures usually following a pre-existing fracture system. These fractures are both conformable to the Yarnell Fault structure and on N10°E 70°NW dip X N70°W vertical dip. Character samples should be taken along these limonite zones to see if they are carrying gold as fracture related only or as disseminated values between fractures. (The underground mapping data is on file in Tucson.)

It appears from the results of the R.C. drilling that the occurrence of specular hematite in the 1-3% range in association with 4-6% limonite is a good indicator of ~+.02 opt Au. The existence of red/maroon hematite and py/limonite casts raises the grade even higher.

Mark A. Miller

MAM:mek
Attachments

cc: R.L. Brown
W.L. Kurtz

J.D. Sell

May 2, 1989

ESTIMATED COSTS - PHASE II PROGRAM

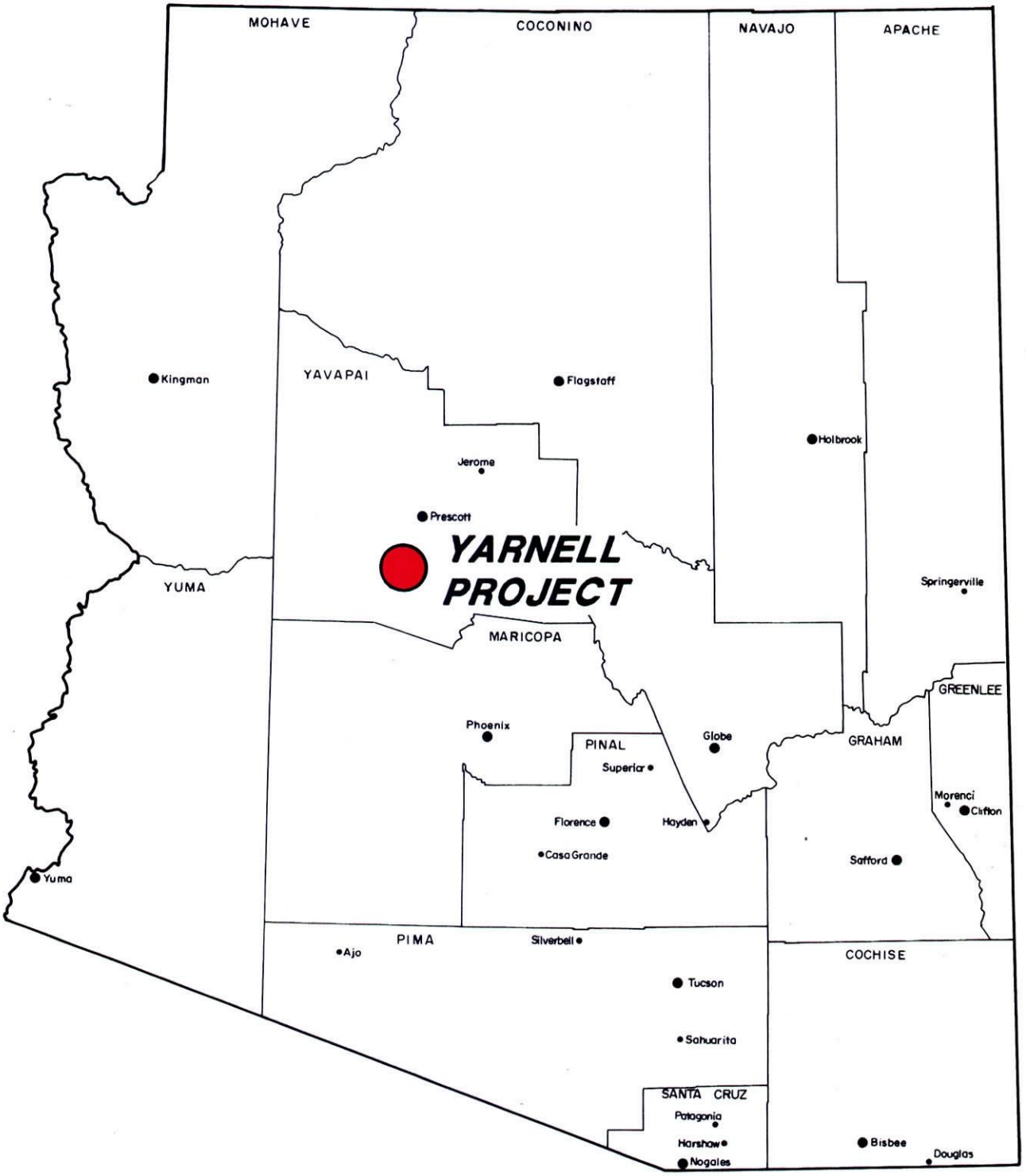
Drilling	
10,000' Drilling at $9.35/ft.	$ 93,500
Direct Drill Costs	
1200' HQ Diamond Drilling	30,000
Assaying	
10,000' Drilling Assays @ $3.00/ft./assay (includes check assays)	30,000
Land Payments	
Norgold Payment July 1, 1989	15,000
Western Bldg. thru Sept. 1989	5,000
Initial Land Payments for Pending Options	15,000
Living Expenses	4,000
Vehicle Expense	1,500
Salaries	
1 Geologist for 3 months	12,000
1 Sample Helper for 2 months drilling	3,000
Drafting Costs	
Site Preparation	
30 Sites @ $300/site	9,000
Supplies	
Sample Bags	1,200
200 Chip Boxes @ $2.00/box	400
4 6" Column Leach Tests	5,000
Underground mapping, surveying of old workings (as accessible)	7,000
Survey Drill Holes (collars)	3,000
Legal	5,000
Total	$240,000
Plus contingency @ 10%	$262,000

J.D. Sell

May 2, 1989

LIST OF ATTACHMENTS

Figure 1	Land Status Map 1" = 2000'
Figure 2	Drilling Progress with Proposed Drill Holes Cross Section lines 1" = 200'
Figure 3-5	Attachments - Cross sections X, Y, Z 1" = 200'
Attachment A	Geology Map 1" = 200'
Attachment B	Surface and Underground Gold Samples in opt 1" = 200'
Attachment C	Drill Hole Logs with Assays and Drill Hole Sections @ 1" = 100'
Attachment D	Bottle Roll Tests



INDEX MAP
YARNELL PROJECT
YAVAPAI CO.,ARIZONA

FIGURE 1

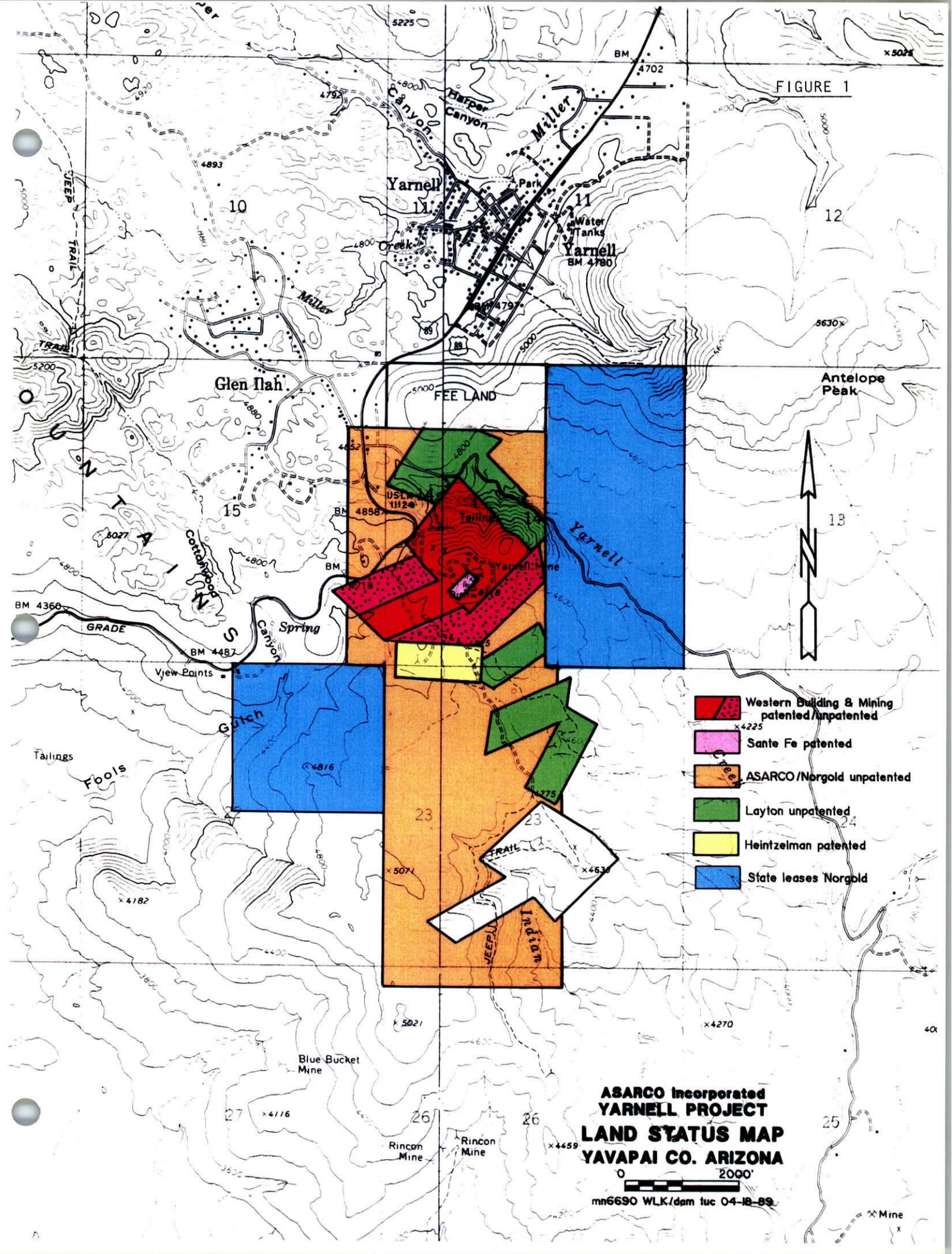
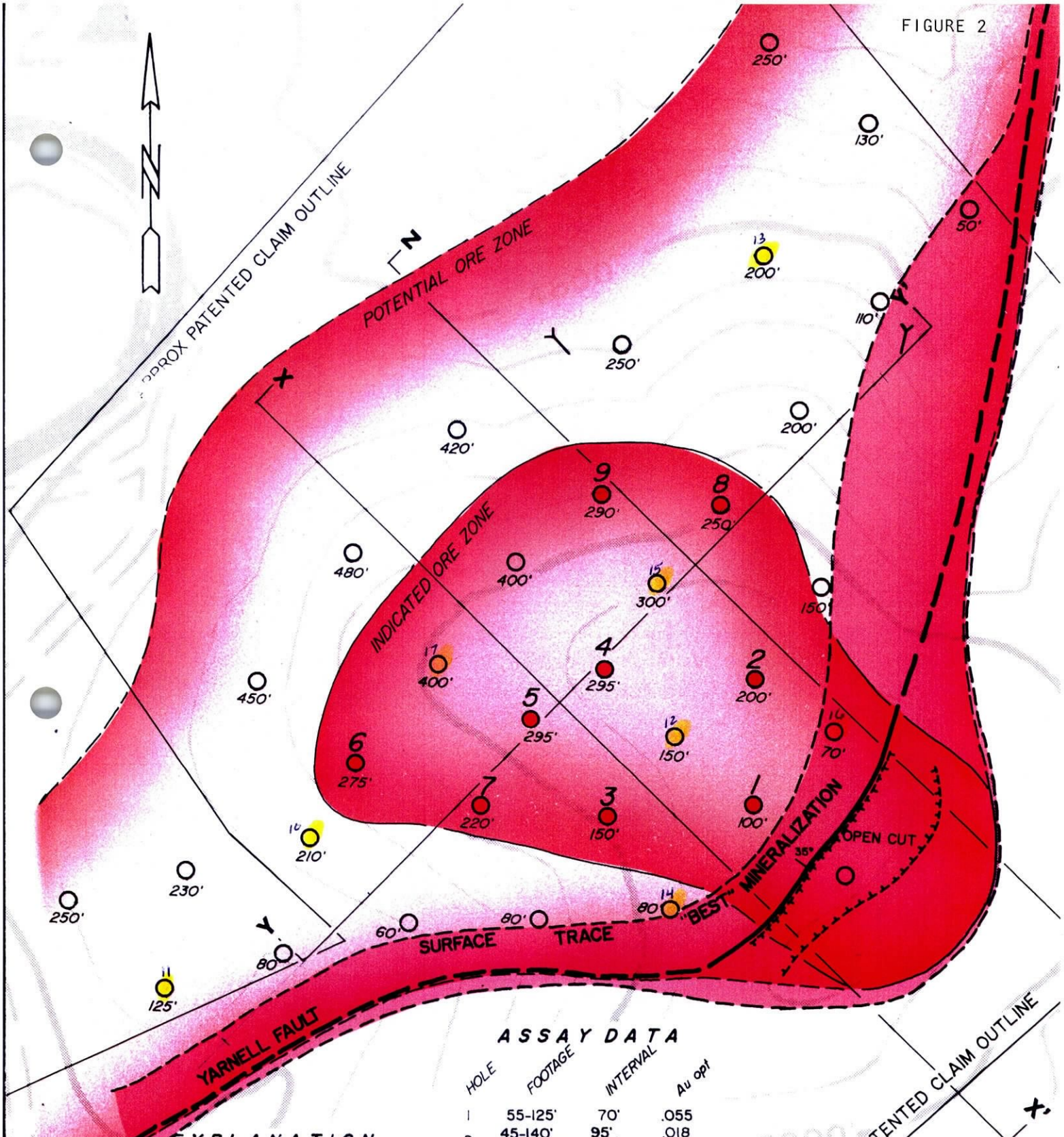

Western Building & Mining patented/unpatented
Sante Fe patented
ASARCO/Norgold unpatented
Layton unpatented
Heintzelman patented
State leases Norgold
FEE LAND
Yarnell
Glen Ilah
Antelope Peak
Harper Canyon
Miller Canyon
Yarnell Creek
Cottonwood Canyon
Spring Canyon
Fools Gulch
Indian Creek
Tailings
Yarnell Mine
Blue Bucket Mine
Rincon Mine
View Points
GRADE
JEEP TRAIL
BM 4360
BM 4487
BM 4797
BM 4780
BM 4702
BM 4858
Water Tanks
Park
ASARCO Incorporated
YARNELL PROJECT
LAND STATUS MAP
YAVAPAI CO. ARIZONA
0 2000'
mn6690 WLK/dam tuc 04-18-89

FIGURE 2



ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225'	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

EXPLANATION

5 — 295' — Completed drill hole depth to Yarnell Fault

210' — Proposed drill hole est. depth to Yarnell Fault

FIGURE 2

T. 10 N., R. 5 W., SEC. 14

ASARCO Incorporated

YARNELL PROJECT

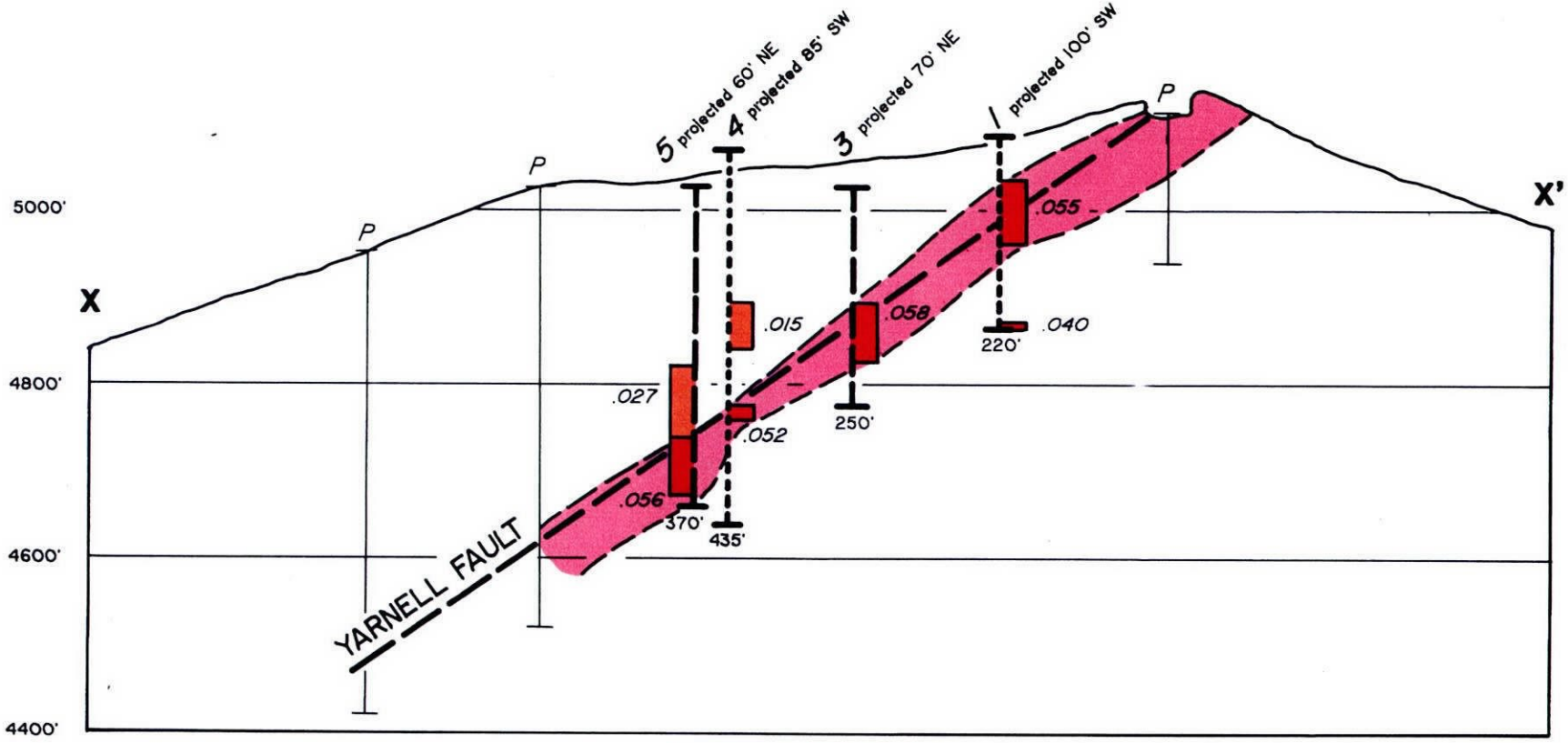
DRILLING PROGRESS

YAVAPAI CO. ARIZONA

0 — 200'

contour interval 40'

mn6689 WLK/dam tuc 04-17-89



LOOKING NORTHEAST

Figure 3

ASARCO Incorporated

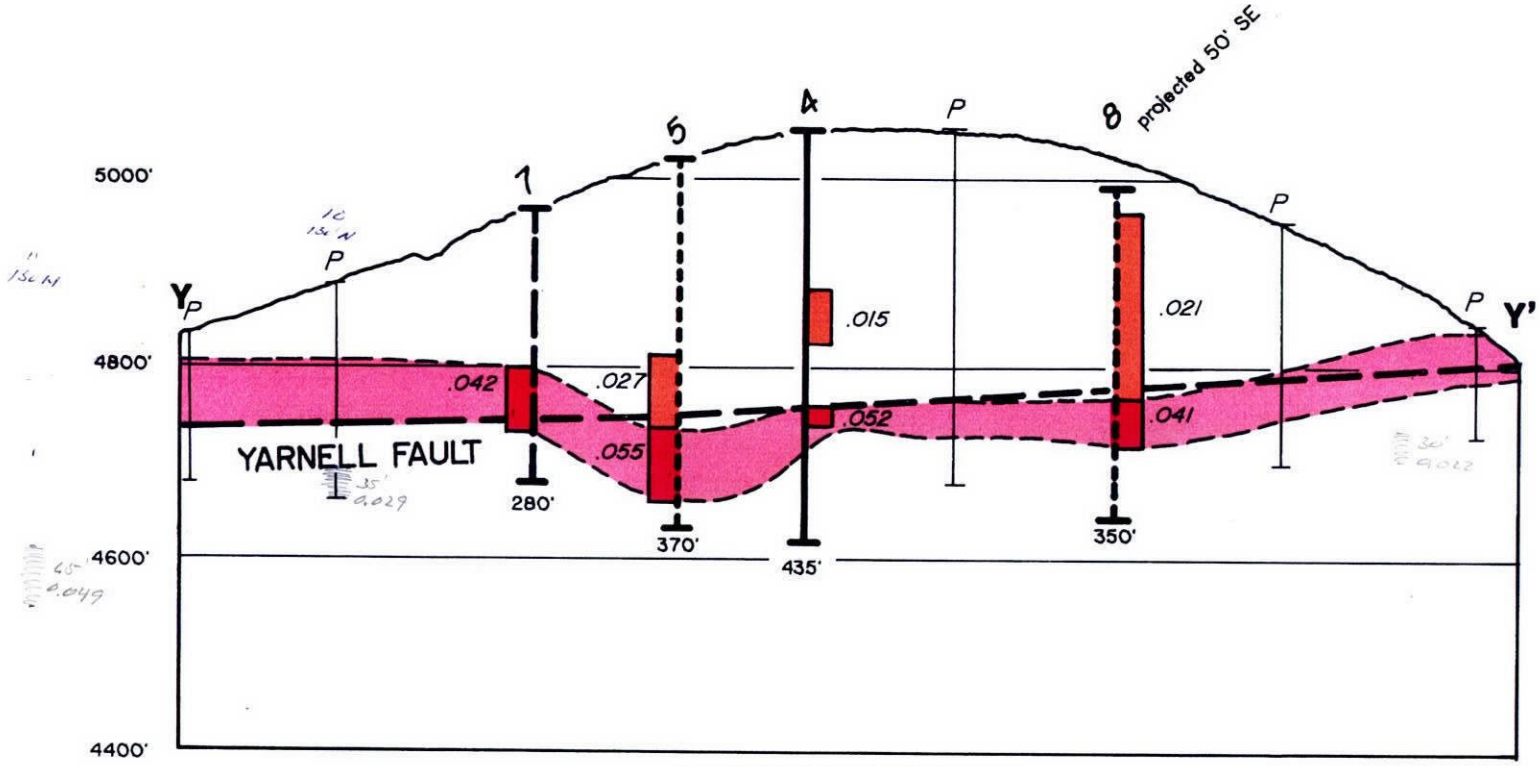
YARNELL PROJECT

SECTION X - X'

YAVAPAI CO. ARIZONA

0 200'

mn6688 WLK/dam tuc 04-06-89



LOOKING NORTHWEST

FIGURE 4

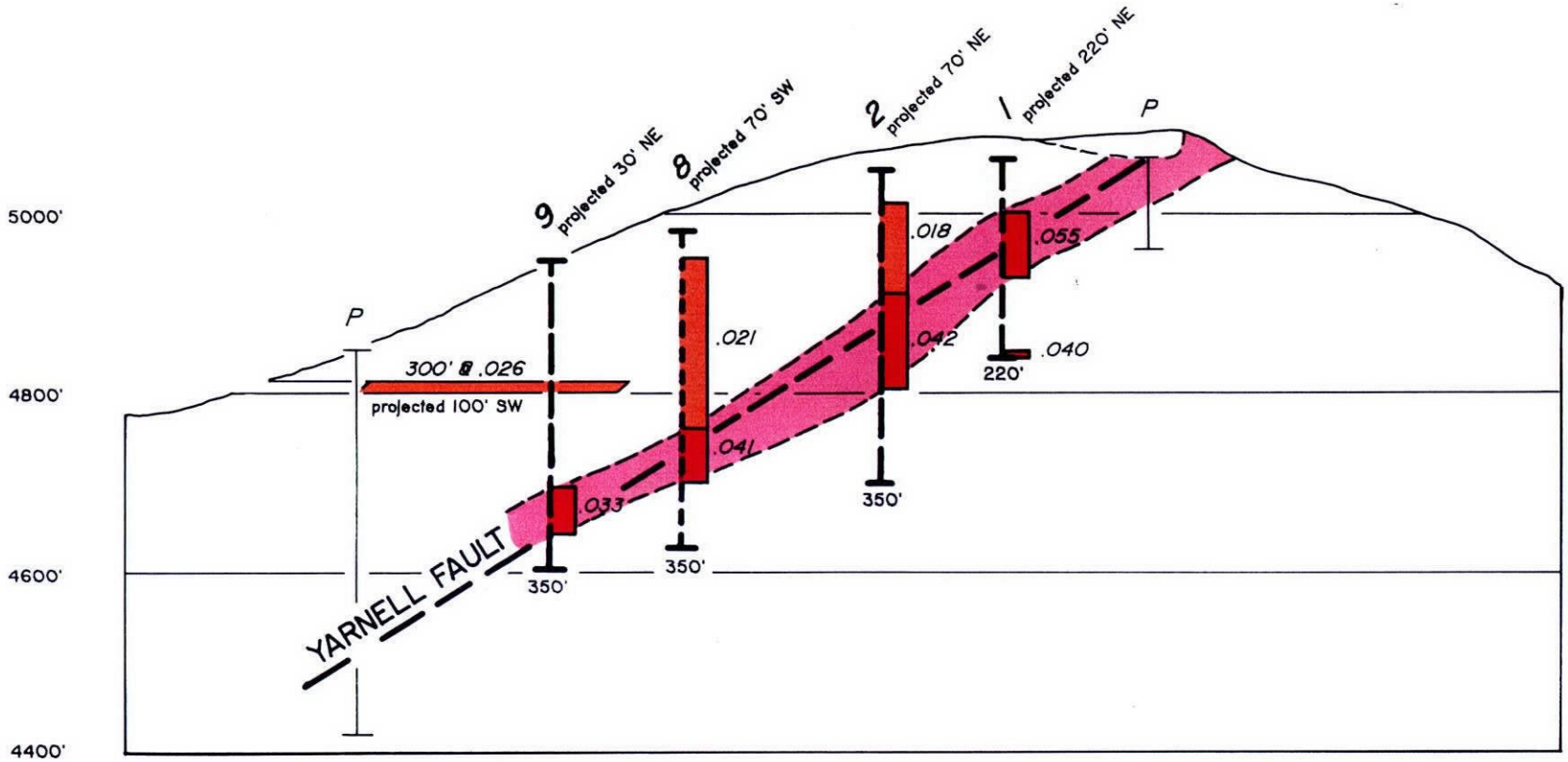
ASARCO Incorporated

YARNELL PROJECT

SECTION Y - Y'

YAVAPAI CO. ARIZONA

0 200'



LOOKING NORTHEAST

FIGURE 5

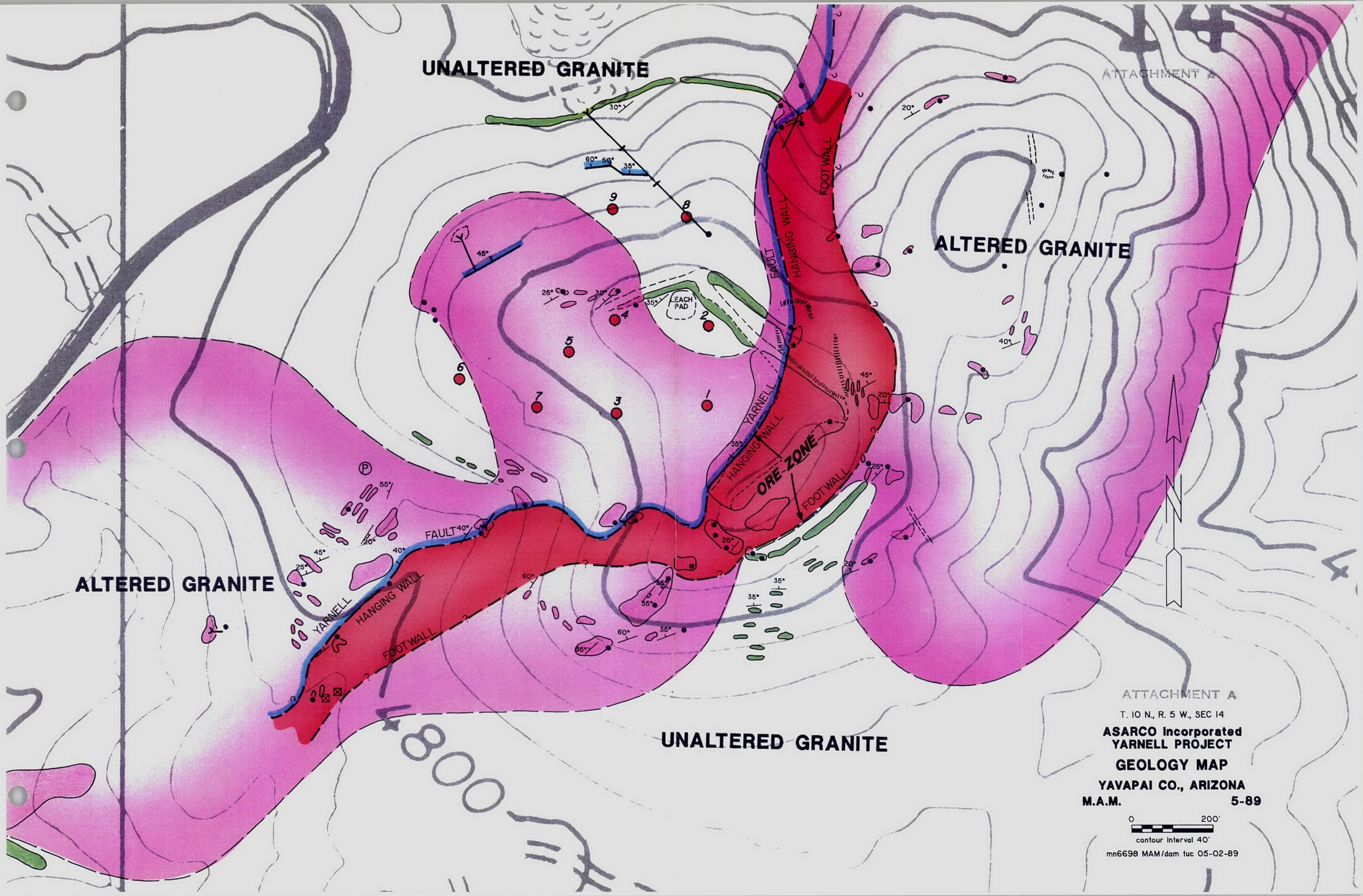
ASARCO Incorporated
YARNELL PROJECT

SECTION Z - Z'

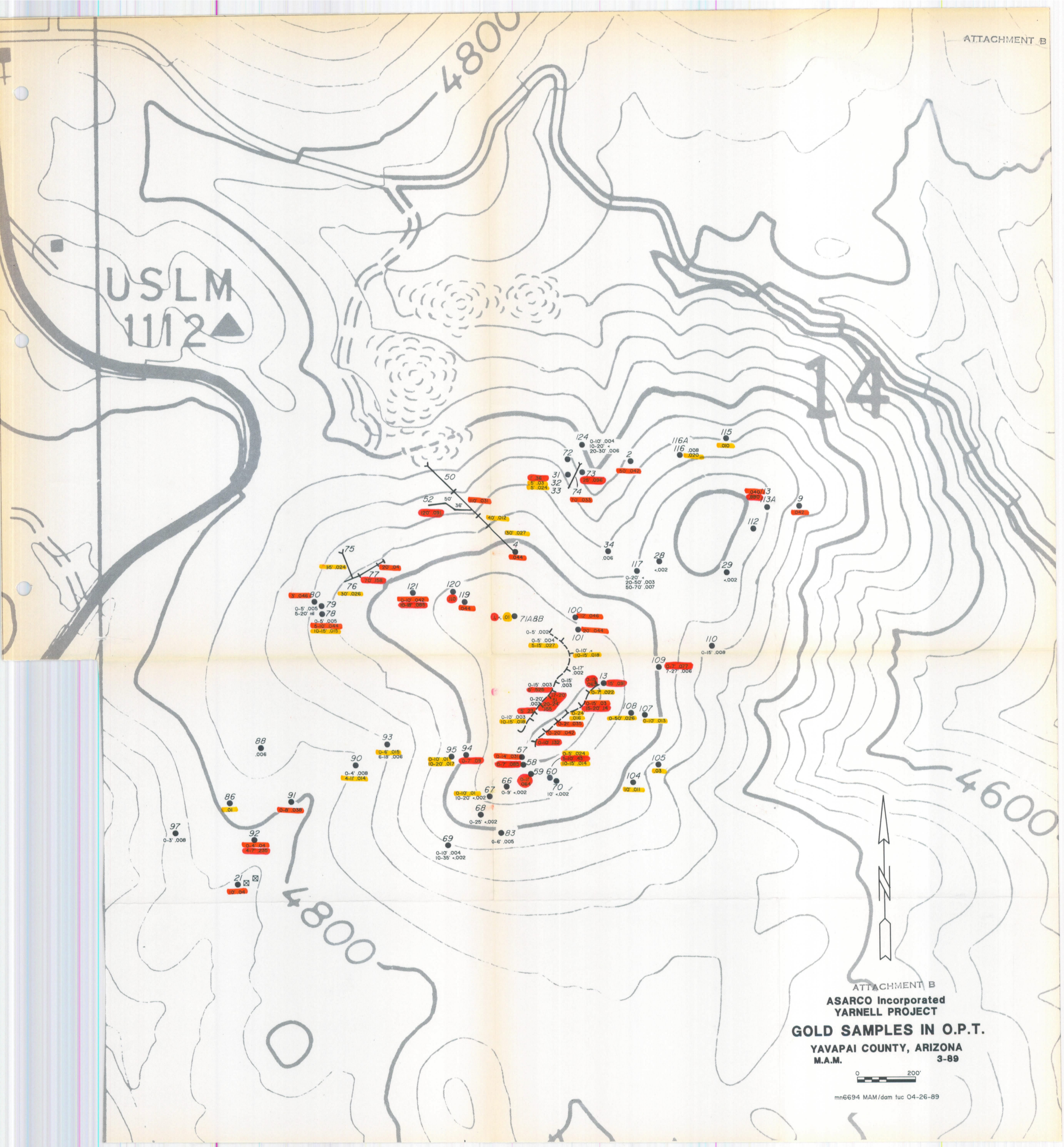
YAVAPAI CO., ARIZONA

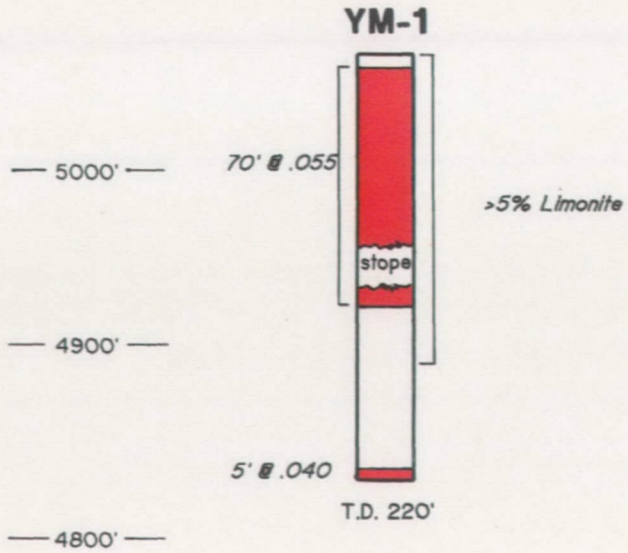
0 200'

mn6699 MAM/dam tuc 05-03-89


UNALTERED GRANITE
ALTERED GRANITE
ALTERED GRANITE
UNALTERED GRANITE
YARNELL FAULT
HANGING WALL
FOOTWALL
ORE-ZONE
LEACH PAD
800
ATTACHMENT A
T. 10 N., R. 5 W., SEC 14
ASARCO Incorporated
YARNELL PROJECT
GEOLOGY MAP
YAVAPAI CO., ARIZONA
M.A.M. 5-89
0 200'
contour interval 40'
mn6698 MAM/dam tuc 05-02-89

ATTACHMENT B





ATTACHMENT C

ASARCO Incorporated
YARNELL PROJECT

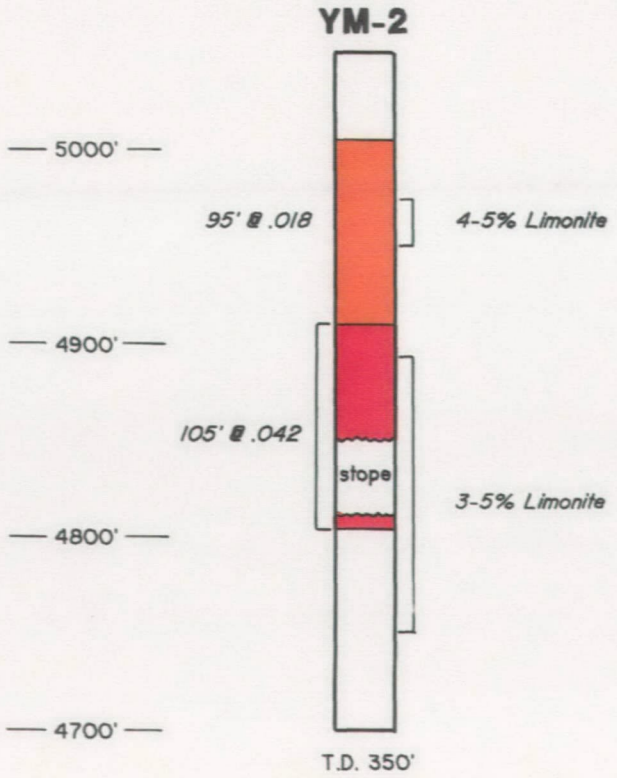
DRILL SECTION YM-1

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6700 MAM/dam tuc 05-03-89



ATTACHMENT C

ASARCO Incorporated
YARNELL PROJECT

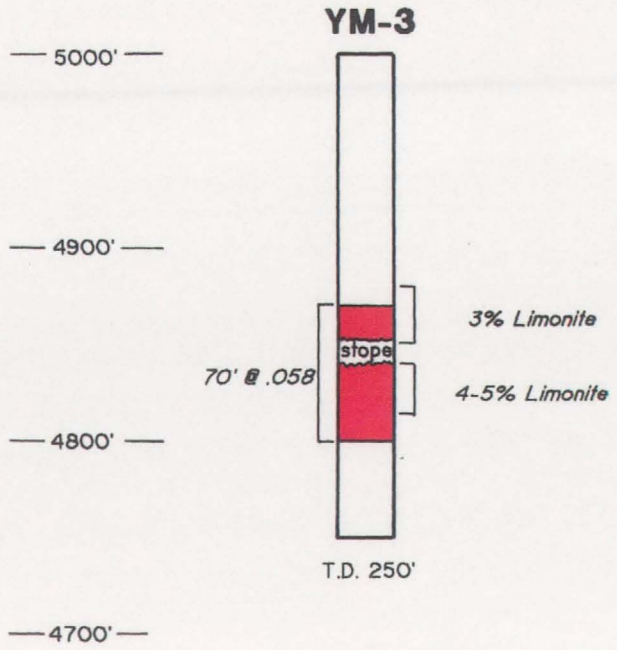
DRILL SECTION YM-2

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6701 MAM/dam tuc 05-03-89



ATTACHMENT C

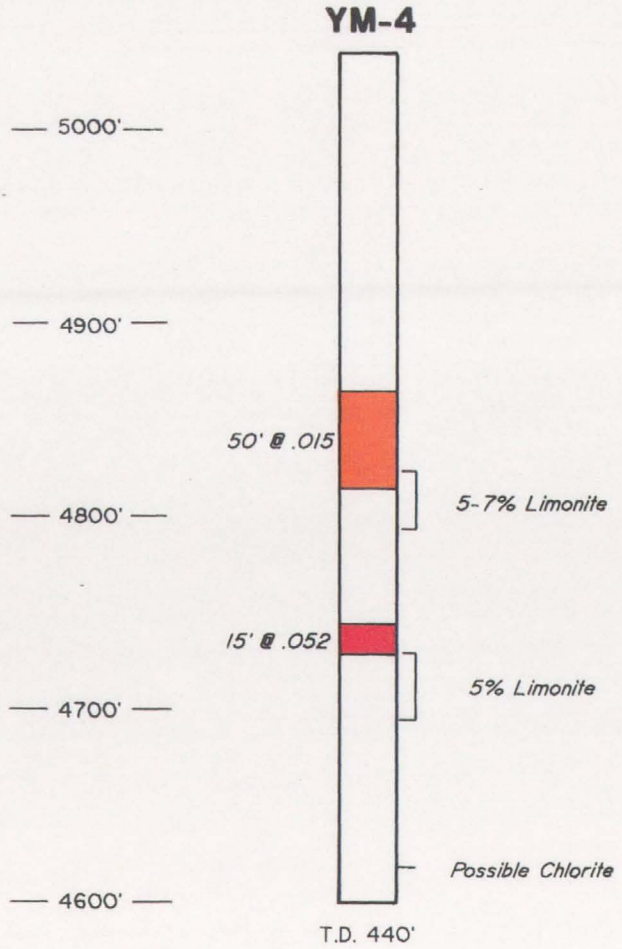
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-3

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6702 MAM/dam tuc 05-03-89



ATTACHMENT C

ASARCO Incorporated
YARNELL PROJECT

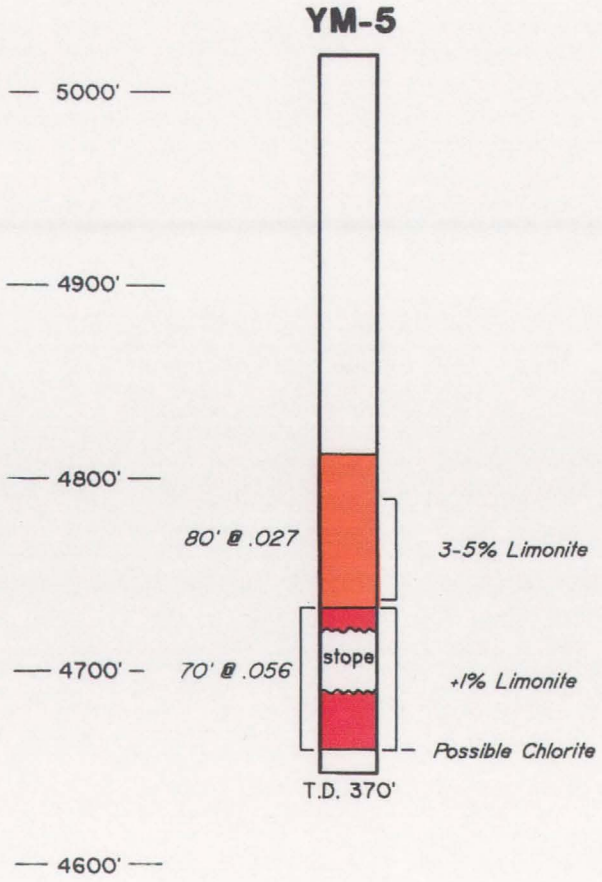
DRILL SECTION YM-4

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6703 MAM/dam tuc 05-03-89



ATTACHMENT C

ASARCO Incorporated
YARNELL PROJECT

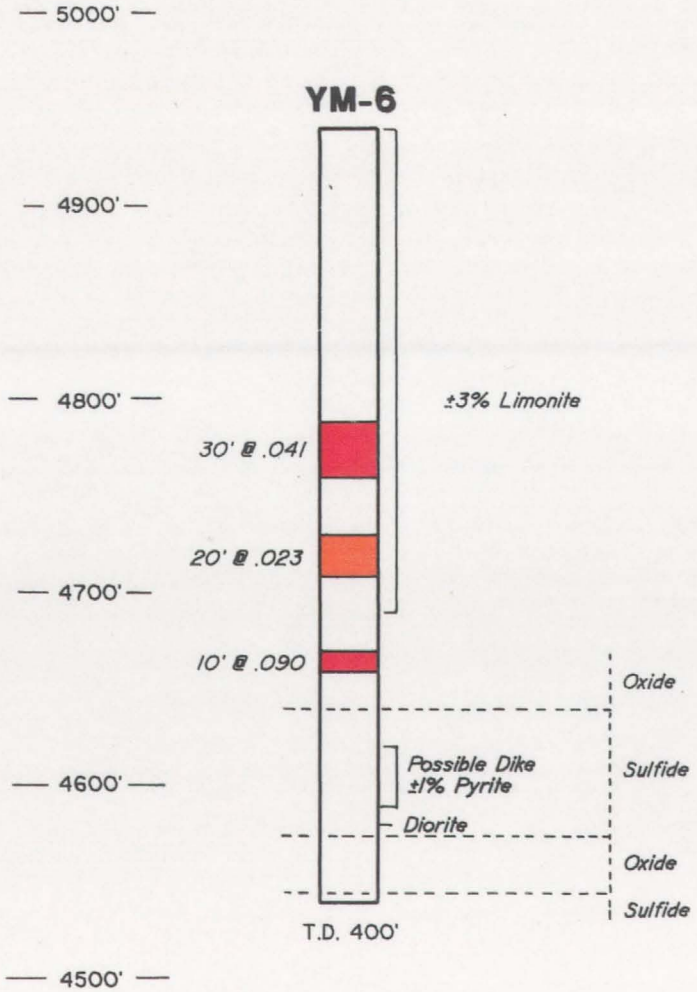
DRILL SECTION YM-5

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6704 MAM/dam tuc 05-03-89



ATTACHMENT C

ASARCO Incorporated
YARNELL PROJECT

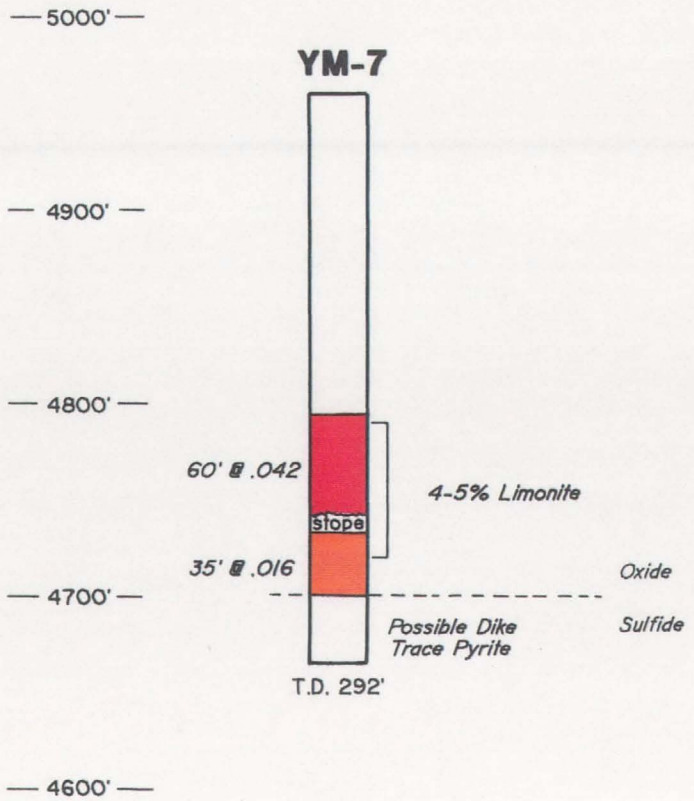
DRILL SECTION YM-6

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6705 MAM/dam tuc 05-03-89



ATTACHMENT C

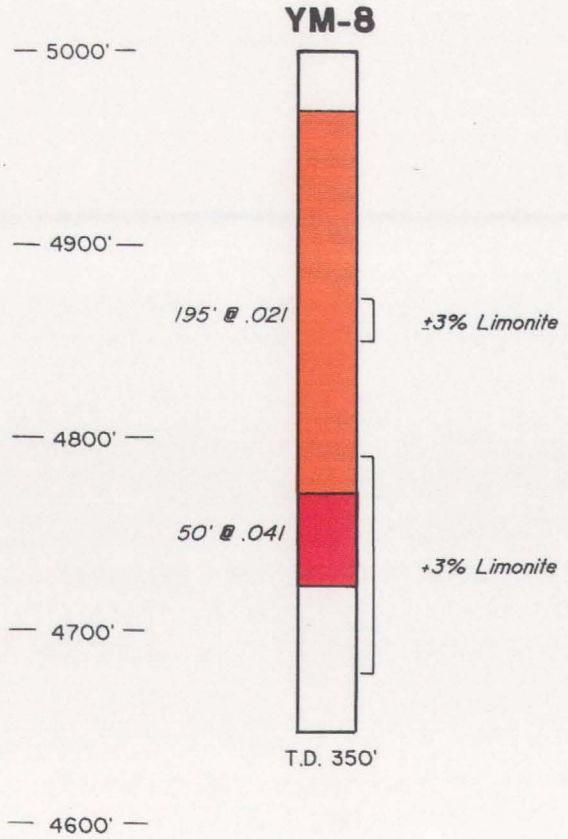
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-7

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6706 MAM/dam tuc 05-03-89



ATTACHMENT C

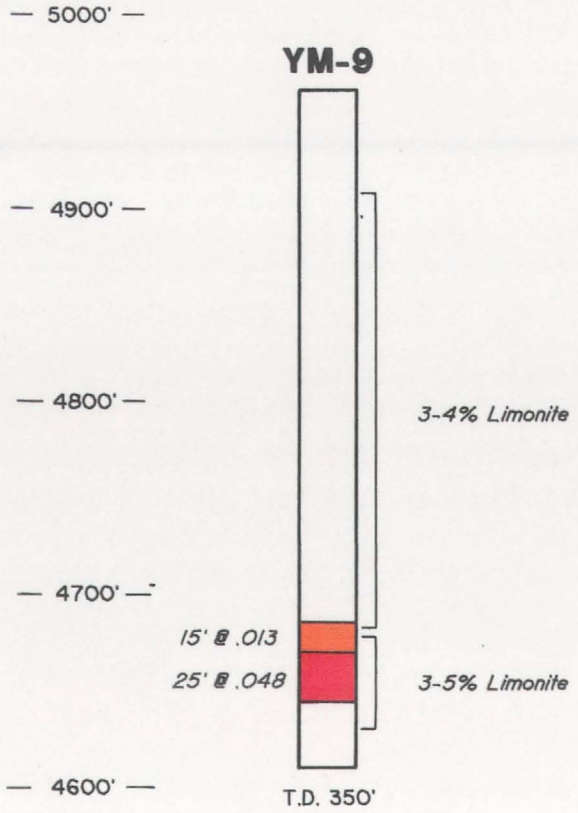
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-8

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6707 MAM/dam tuc 05-03-89



ATTACHMENT C

ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-9

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6708 MAM/dam tuc 05-03-89

ATTACHMENT D

ASARCO

Southwestern Exploration Division

April 28, 1989

W.L. Kurtz

Preliminary Results
Yarnell Project
Metcon Research Inc.
24-hr. bottle roll tests
Yavapai County, Arizona

The Metcon bottle roll NaCN leach tests covering a 24-hour leach, have been completed by Metcon. The attached result sheets were FAXED to Asarco.

As a preliminary suggestion, the 60% recovery on Test 2, and the 70% recovery on Test 3 are in the interesting range and suggest that heap leaching will be one of the options. The low 23% recovery on Test 1 is unexplained at the moment, since the Metcon calculated head of 0.092 opt gold vs. 0.027 opt gold from Triad is quite different.

Tom Henderson reviewed the results and recommended a longer leach period. I have authorized Metcon to redo the tests using the 24 hr., 48 hr., and 72 hr. intervals. This procedure will generate an extraction curve and point out the pros and cons based on the three samples.

Table 1 shows the head assays and % leach recovery on the three samples.

Table 1. 24-hr. NaCN Leach Test Results

Hole, Interval	Calc. Head		Triad	% Leach	
	Au	Ag	Au Only	Au	Ag
YM-2, 145-150	0.092	0.010	0.027	23.54	48.92
YM-5, 290-295	0.062	0.010	0.061	59.57	49.00
YM-8, 230-235	0.050	0.456	0.044	70.00	1.36

As noted, the Metcon calculated head for sample YM-2, at 0.092 opt gold is considerably higher than Triad at 0.027 opt gold. The first impression is a "nugget" problem which is also suggested by the low % leach figure. The longer leach tests will aid in understanding the problem.

I had not supplied Metcon with a head assay on the samples, but had told them to run one if they desired. Metcon's normal procedure is to calculate the head assay. The head assay is calculated (Test 1, YM-2 example) by taking the "Assay" column of leach residue (= 0.070 opt) and adding in the "CONTENT" column of 24 hrs. leach solution (= 0.022 opt) to equal 0.092 opt gold calculated head assay.

As noted, YM-2 had a large difference in Metcon vs. Triad, but YM-5, and YM-8 are very good to good.

Metcon will run a head assay on the pulps as well as rerun a 24 hr. through 72 hour test on the three samples.

James D. Sell

JDS:mek
Att.

cc: R.L. Brown/F.T. Graybeal
M.A. Miller
T.D. Henderson

Conditions:

1. A 500 gram sample of minus 10 mesh ore was combined with 1000 ml of distilled water and 1.5 grams of lime.

2. The slurry was agitated on a bottle roll apparatus until the pH stabi lized, then 1.0 gram of sodium cyanide was added.

3. Cyanide leaching was conducted for 24 hours. Solids and liquid were separated by filtration.

4. Cyanide and lime consumptions were determined by titration of the combined filtrate and wash liquors.

5. Samples were assayed for gold and silver and metallurgical calculations were performed.

APR 2 7 1989
SW Exploration

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 04/27/89

TEST No.: 1

PROJECT No: M-175

FEED: YM - 2 (145-150)A

CONDUCTED BY: E.I./A.M.

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (OPT)	ASSAYS (OPT)	CONTENT (OPT)	CONTENT (OPT)	DISTRIBUTION %	DISTRIBUTION %
Res./Sol.	gram/ml	Au	Ag	Au	Ag	Au	Ag
Preg+Wash	1000						
2 hrs.				0.000	0.00	0.00	0.00
6 hrs.				0.000	0.00	0.00	0.00
24 hrs.	1360	0.008	0.002	0.022	0.00	23.54	48.92
48 hrs.				0.000	0.00	0.00	0.00
72 hrs.				0.000	0.00	0.00	0.00
Leach Res	497	0.070	0.005	0.070	0.01	76.46	51.08
Calc.Head		0.092	0.010				
HeadAssay		0.027	Dried				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
0 hrs.	1000	2.00		3.00		12.20
2 hrs.	0					
6 hrs.	0					
24 hrs.	1360	1.30	0.47	0.46	4.78	11.60
48 hrs.	0					
72 hrs.	0					

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

TEST No.: 2

FEED: YM - 5 (290-295)A

DATE: 04/27/89

PROJECT No: M-175

CONDUCTED BY: E.I./A.M.

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (OPT)		CONTENT (OPT)		DISTRIBUTION %	
Res./Sol.	gram/ml	Au	Ag	Au	Ag	Au	Ag
Preg+Wash	1000						
2 hrs.				0.000	0.00	0.00	0.00
6 hrs.				0.000	0.00	0.00	0.00
24 hrs.	1370	0.013	0.002	0.037	0.00	59.57	49.00
48 hrs.				0.000	0.00	0.00	0.00
72 hrs.				0.000	0.00	0.00	0.00
Leach Res	499	0.025	0.005	0.025	0.01	40.43	51.00
Calc.Head		0.062	0.010				
HeadAssay		0.041 Fwd					

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
0 hrs.	1000	2.00		3.00		12.10
2 hrs.	0					
6 hrs.	0					
24 hrs.	1370	1.38	0.22	0.50	4.64	11.70
48 hrs.	0					
72 hrs.	0					

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO
DATE: 04/27/89
TEST No.: 3
PROJECT No: M-175
FEED: YM - 8 (230-235)A
CONDUCTED BY: E.I./A.M.

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (OPT)		CONTENT (OPT)		DISTRIBUTION %	
Res./Sol.	gram/ml	Au	Ag	Au	Ag	Au	Ag
Preg+Wash	1000						
2 hrs.				0.000	0.00	0.00	0.00
6 hrs.				0.000	0.00	0.00	0.00
24 hrs.	1320	0.013	0.002	0.035	0.01	70.00	1.36
48 hrs.				0.000	0.00	0.00	0.00
72 hrs.				0.000	0.00	0.00	0.00
Leach Res	495	0.015	0.450	0.015	0.45	30.00	98.64
Calc.Head		0.050	0.456				
HeadAssay		0.044	Fried				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
0 hrs.	1000	2.00		3.00		12.20
2 hrs.	0					
6 hrs.	0					
24 hrs.	1320	1.40	0.31	0.50	4.73	11.50
48 hrs.	0					
72 hrs.	0					

Rodo Tanki

DRILLING INFORMATION

Contractor: DSC Inc
Date drilled: 3/20
Hole diameter:
Inclination: Vert

PROJECT Yarnell **HOLE NO.** YMRDH-1

Collar elev.: Final depth: 220
Coord. N/S: Coord. E/W:
Logged by: Mark Miller Date logged: 3/20/89

DEPTH from	DEPTH to	int'vl	ASSAY Au				ALT % Si	% Qz Vns	% Clay Alt / Sericite	% Biotite	% Chlorite	MIN % Limonite	% Pyrite Lim	% Hem	% Sulfides	% Rodochr	Ox Ides	REMARKS
0	5		.005				10%	?	?	Pos 5%	?	5-6%	–	?	–	–		Wkly Alt
5	10		.048				5-10	<1	1-2	1-2	–	3	–	–	–	–		Wkly Alt Gn-Bio Frags
10	15		.006				10%	<1	<1	Pos 5%		4-5%	–	2	–	–		AA But Much More Biotite - Wkly? Altered
15	20		.041				10%	<1	<1	3-5	–	5%	–	–	–	–		AA Wkly More Biotite
20	25		.067				5%	1-2	–	1-2	–	5-7%	–	Hm 1%	–	Pos 3%		AA But Wkly Lim
25	30		.01				5%	7	–	5%		3%	–	2	–	Pos		AA But More Biotite - Lots Hm Spots @ Biotite Sites
30	35		.012				10%	1-3	<1	3%		5%	–	<1%	–	Pos Tr		Qz Lux Opaline - Less Frosty, More Ars
35	40		.014				10%	2	<1	3%	?	5%	–	<1	–	2-		Opaline SiO2 Adj To Hm Staining " "
40	45		– ?				>10%	<1	3?	1-2	–	2%	–	Tr?	–	–		AA w/o Opaline SiO2 " "
45	50		.023				>10%	<1	Tr Cr Tr	<1	–	5?	Tr	Tr?	–	–		AA w/o Opaline SiO2 - Few Py Cubes (Now Lim)
50	55		.014				>10	<1	Tr Cr 2	<1	–	5%	–	Tr?	–	–		AA
55	60		.025				7-10	?	Scr	3-4		5%	–	Tr-1%	–	–		AA
60	65		.032				>10	–	4?	Tr		5-8%	<1	>1%		–		AA - Lim on Qz, Also Mn Ox Green Scr Fpars
65	70		.058				>10	3	Scr 1	Tr	–	5%	Tr	2-3%	–	–		Lim & Spec Hm Coating Qz
70	75		.023				>10	3	2-1	–		5%	Tr?	2-3	–	–		Vn Qz cutting Limonitic Zones - Py Cubes in Lim + Qz
75	80		.056				>10	5	Scr	–	–	5-8	Tr	–	–	Tr		
80	85		.094				>10	5-8	1	–	–	5-8	–	3	–	<1		
85	90		.067				>10	5	Scr 2-3	–	–	5-8	–	1-2	–	<1	Tr Cu Ox <1%	Cu Ox Prob As Chrysocolla Limonite Coating w/ Spec Hm on Fracts
90	95		.048				>10	5	Scr 3%	Tr?	–	5-8	Tr	<1	–	Tr? <1		
*95	100	1'	.065															Represents 1' Broke into Stope @ 96' - Wont U.G. To See Stope Where It Came out in Stope
100	105		NS															
105	110		NS															
110	115		NS															Stope No Mtn
115	120		NS															
120	125	?	.062				>10	5	–	–	–	10	–	–	–	–		Pt Stope Muck - Pt Rock
125	130		.011				>10	?	–	–	–	5	–	–	–	–		Limonite Shines on Qz
130	135		.016				>10	5+	Scr 1-2	–	–	5	–	1	–	–		
135	140		.014				>10	5-7	2	–	–	7	–	2	–	–		ABU Limo w/ Mod Spec Hm -
140	145		Tr				"	8	3	–	–	5-7	–	Tr-3	–	–		- Do
145	150		Tr				>10	5	–	–	–	5-7		Tr				- Do

Starts ½ split

2555 frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT Yarnell mine HOLE NO. YM #1

Collar elev. Final depth 220

Coord. N/S Coord. E/W

Logged by M. Miller Date logged 3/20-21/79

DEPTH from	DEPTH to	int'vl	ASSAY Tr Au				Alt Si	Alt Py	Alt Cinn/Sph	Alt Bio	Alt Chl	Min Cim	Min Pg-Musc	Min Spec Hm	Min Sph	Min Bio Hem	Oxide	REMARKS
150	155		.008				>10	2	–	–		5-8	–	1	–	–	Poss Aden Cu	- Poss CuOx
155	160		.008				>10	3-4	3-4	–	–	4-5	–	1	–	–		Both Dk Brn & Lt Brn FeOx cuatrys (Cim est)
160	165		.003				>10	?	3-4			4-5	–	Poss Tr	–	–		" "
165	170		–				>10	?	5	–	–	5	–	Poss Tr				" "
170	175		.011				>10	–	5	Tr?	–	5	–	?	–	–		Poss Tr – 1/1. Bio in Qz?
175	180		.003				>10	–	5	?	–	3+	–	Tr	–	–		Tr → <1/1. Spec Hm
180	185		–				>10	3?	5-5	Tr	–	5	–	Poss Tr	–	–		
185	190		–				>10	3	"	"		3	–	?	–	–		Less obvious Limonite – Used as small Spheres BDs
190	195		–				>10	3	7-10	Tr?	–	3+/-	–	–	–	–		More sericitic Fpaces Tr Opaline Qz
195	200		.002				>10	<2	"	1	–	<3	–	Tr	–	–		Less Limonite than Previous Run
200	205		.002				>10	2-3	5-7	1-2	–	5	–	Tr?	–	–		" " "
205	210		.008				>10?	?	6-10	3-5	–	3	–	–	–	–		Inc Biotite
210	215		.001				>10	? –	8-10	5	–	1-2	–	–	–	–		Noticeable Inc. Bio Dec Lim – FeOx
215	220		.04				>1	1	8	3	–	2	–	–	–	–		Poss sulfide in half of Lim
																		TD 220'

2555 frk

TRIAD MINERALS COMPANY
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(602) 684-3816

ASSAY REPORT

DATE 3-23-89 COMPANY Asarco Lab # 032389-3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 4-115-120	.003		
" " 120-125	.017		
" " 125-130	.001		
" " 130-135	.019		
" " 135-140	.004		100-205 105' @ .0
" " 140-145	.001		
" " 145-150	Nil		
" " 150-155	.004		
" " 155-160	Nil		
" " 160-165	.007		
" " 165-170	.003		
" " 170-175	.004		
" " 175-180	.016		
YM-1-0-5	.005		
" 1-5-10	.048		
" " 10-15	.004		
" " 15-20	.041		
" " 20-25	.067		
" " 25-30	.010		
" " 30-35	.012		
" " 35-40	.024		
" " 40-45	Nil		
" " 45-50	~~.037~~ .023		
" " 50-55	.014		

Certified Assays When Signed And Dated
DATE 3-23-89 SIGNATURE

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ASSAY REPORT

DATE 3-24-89 COMPANY Asarco Lab # 032489-1

Hole # 1 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 2 Remarks
YM 1-55-60	.025		
" " 60-65	.032		
" " 65-70	.058		
" " 70-75	.023	95 @ .037 opt	
" " 75-80	.056	~45 @ .052	
" " 80-85	.094		
" " 85-90	.067		
" " 90-95	.048		
" " 95-100	.065		
" " 100-105	No Return		
" " 105-110	No Return		
" " 110-115	No Return		
" " 115-120	No Return		
" " 120-125	.062		
" " 125-130	.011		
" " 130-135	.016		
" " 135-140	.014		
" " 140-145	TR	TR = less than .001	
" " 145-150	TR		
" " 150-155	.008		
" " 155-160	.008		
" " 160-165	.003		
" " 165-170	NIL		

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3-24-89 [signature]
DATE SIGNATURE

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ASSAY REPORT

DATE 3-24-89 COMPANY Asarco Lab # 032489-1

Hole # 1

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 1-170-175	.011		
" " 175-180	.003		
" " 180-185	NIL		
" " 185-190	NIL		
" " 190-195	NIL		
" " 195-200	.002		
" " 200-205	.002		
" " 200-210	.008		
" " 210-215	.001		
" " 215-220	.04		
" "			

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3-24-89
DATE SIGNATURE

DRILLING INFORMATION

Contractor: DSC
Date drilled: 3-22 & 23-89
Hole diameter: 5½
Inclination: V

PROJECT YARNELL **HOLE NO.** YM-2
Collar elev. _____ Final depth: 350'
Coord. N/S _____ Coord. E/W _____
Logged by: M.A. MILLER Date logged: 3/23/89

DEPTH from	DEPTH to	int'vl	ASSAY (Tr=1/2) Au				Silic/Alt: Silicification	Silic/Alt: Sunto Hard	Silic/Alt: Sericite/Clay Alt	Silic/Alt: Bio	Silic/Alt: Other	Min: Limonite	Min: Fe/Mn	Min: Fe Hm	Min: Red Hm	Min: Sulfides Other	FeOx Sum	REMARKS
0	5	5	.013															Prob Fill
5	10		.001							2							>10	
10	15		.013															
15	20		.014															
20	25		.001						*	1-2								20-30 Combined — Sampling Error
25	30		.001															Red Coloration as Below — w/ Qz
30	35		.002															
35	40		.002							3								Red Stain Assn/ V in Contact w/ Bio —
40	45		Tr															
45	50		.023						3-4 (5)	3-4		1			Poss Tr			Red Staining in Qz - Poss Hm Staining —
50	55		.038 .229															
55	60		.015						3 (5)	<1		<1	-	-	.	-		FeOx @ 30 Stgs —
60	65		.009															
65	70		.006							3		3		Tr				
70	75		.01															
75	80		.023							<1		4+	1	<1	Tr			First Strong Lim Veins
80	85		.017															
85	90		.013							(<1)		1-5	1	1	Tr			
90	95		.011															
95	100		.035 .217	2nd						<½		1	<1	<1	-			Heavy Lim. Veins
100	105		.006															
105	110		.037							3		2+		<1				Inc in Bustle
110	115		.003															
115	120		.009				3			3+		1-2		Tr			<5	
120	125		.034				2			1		1-2		Tr			5	
125	130		.013				5-6			1		2+3		<1			5	Opaque Qz.
130	135		.014				5-6			1+		2-3		<1			7	
135	140		.000				5-6			<1		3+	<½	≈1			10-15	
140	145		.076				5-			<1		2-3	-	Tr			10	
145	150		.027				5-7			<1		3-3	-	<½			15	Opaque Qz. < 1%

2555 frk

DRILLING INFORMATION

Contractor
Date drilled 3/22-23/89
Hole diameter
Inclination

PROJECT Yarnell **HOLE NO.** Ym-2

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by Date logged 3/23/89

DEPTH from	DEPTH to	int'vl	Trace ASSAY Au				Silic/Alt Silica/Chert Qz	Whitecap Qz	Sericite/Clay Alm	Py	Other	Lim	Hematite	Jarosite	Red Hm	Other	FeOx Stain	REMARKS
150	155		.011				7-10			<1		5+					15-20	Bam Cuttings
155	160		.01				7-10			L		3+	Tr	Tr	-		20	Sparse Qz
160	165		.003				7-10			Tr		3-4	-	1-2	-		10-15	
165	170		.005				7+			Tr		3?	-	1			<10	Opaque Qz
170	175		.007				6-7			Tr		3	-	1			<10	
175	180		(.151) 2nd .124				6-7			-		4-x	Tr <1	1			10+	
180	185		.101				6-7			-		5+	2	1	Tr		10	Py Color Tn Red Hm
185	190		.085				7-10			wht Bin		4	1	1	-		<5	
190	195		.029				10?	2		-		5	1	1	Tr		10-15	
195	200		.053				7-10	2-3		-		4	1	1	-		10-15	200-207 Stope
200	205																	
205	210																	
210	215																	
215	220																	Stope No Sample
220	225																	
225	230																	
230	235																	
235	240																	
240	245		.027				50			-		-						Poor Pattern
245	250		.002				50			-		2	-	-	-		-	
250	255		.018				10										5-7	
255	260		.002				>10	-	-	-		3	Tr	1			<3	Rolled Rock
260	265		.002				50					<3	Tr	1-2			<3	Stringer Qz - Like Ox
265	270		.004				30+					<3	Tr	1-2			<3	"
270	275		.001				20+					3+	-	1+			5-7	
275	280		.003				10+					5-7	1+	2+	-		10	Stringer Oxid w/ Limonite
280	285		.005				8-10					5+	-	2+	-		<7	Limonite Hmg Vuggs
285	290		.004				5-10					3-4	-	<1			5+	
290	295		.004				5-10					3	-	2			5+	
295	300		.001				5-6					3-2	Tr+	2			5+	

2555 frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT **HOLE NO.** YM-2

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by Date logged

DEPTH from	DEPTH to	int'vl	ASSAY Au				Alt/Sil: ?	Alt/Sil: Wht Qz	Alt/Sil: Sec/Cm	Alt/Sil: Bio	Alt/Sil: Other	Min: Limonite	Min: Py/Plm	Min: Sulf Mn	Min: Pb/Zn	Min: Other	Oxid	REMARKS
300	305		.001				5-8	?	–	–		5		1-2	–	–	5-7	Some Vein " " "
305	310		.002				4-5	?				4	Trace	1	–	–	4-7	Some Very Limonite / Sul. Mn
310	315		.006				5+	?				1-2+		2½			6-8	
315	320		.006				5-7					3-4		1			5+	Limonite carrys most Qz
320	325		–				4-7	–				3		2½			3-8	" " "
325	330		–				5-7					3	Trace	–			5-8	" "
330	335		–				5-7					3	–	2½			5-8	
335	340		.004				5-7	5-7				3-5		2½			8-10	
340	345		.003				5-7	5-7				3	–	2½			10+	Mostly Wht Qz
345	350		.003				5-7	5+				2-3	–	2½			7/20	
					TD @ 350'													
STANDARDS																		
.02 opt.																		
103	105		.015															
177	179		.007															
218	221		.003															
307	309		.005															

2555 frk

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ASSAY REPORT

DATE 3-26-89 COMPANY Asarco Lab # 032489-1

Hole # 2 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 1 Remarks
YM 2-0-5	.013		
" " 5-10	.001		
" " 10-15	.013		
" " 15-20	.014		
" " 20-30	.001		
" " 30-35	.001		
" " 35-40	.002		
" " 40-45	TR		
" " 18-20	.006	← .006 Sample Cass	
" " 45-50	.023		
" " 50-55	.229	.038	
" " 50-60	.015		
" " 60-65	.009		
" " 65-70	.006		
" " 70-75	.010		
" " 75-80	.023		
" " 80-85	.017		Certified Assays When Signed And Dated
" " 85-90	.013		
" " 90-95	.011		3-26-89 Gary B Eddy DATE SIGNATURE
" " 95-100	.217	.035	
" " 100-105	.006		
" " 105-110	.037		
" " 110-115	.003		

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ASSAY REPORT

DATE 3-26-89 COMPANY Asarco Lab # 032489-1

Hole # 2 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 2 Remarks
YM 2- 115-120	.009		
" " 120-125	.034		
" " 125-130	.013		
" " 130-135	.014		
" " 135-140	.009		
" " 140-145	.076		
" " 145-150	.027		
" " 150-155	.011	155' (0.04 opt	
" " 155-160	.010		
" " 160-165	.043		
" " 165-170	.005		
170-175	.047		170-175
" " 175-180	.124		
" " 180-185	.101		
" " 185-190	.085		
" " 190-195	.029		
" " 195-200	.053		
" " 200-240	No Return		
" " 240-245	.027		
" " 245-250	.002		
" " 250-255	.018		
" " 255-260	.002		
" " 260-265	.002		
" " 265-270	.004		

Certified Assays When Signed And Dated
3-26-89 [signature]
DATE SIGNATURE

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ASSAY REPORT

DATE 3-26-89 COMPANY Asarco Lab # 032489-1

Hole # 2 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 3 Remarks
YM 2-270-275	.001		
" " 275-280	.003		
" " 280-285	.005		
" " 285-290	.004		
" " 290-295	.004		
" " 295-300	.001		
" " 300-305	.001		
" " 305-310	.002		
" " 310-315	.002		
" " 315-320	.004		
" " 320-325	NIL		
" " 325-330	NIL		
" " 330-335	NIL		
" " 335-340	.004		
" " 340-345	.003		
" " 345-350	.003		
" "			

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3-26-89
DATE SIGNATURE

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ASSAY REPORT

DATE 3-28-89 COMPANY Asarco Lab # 032589-1

Misc. and refires

Page 1

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM - 2 103-105	.015		
" " 177-179	.007		
" " 218-221	.003		
" " 307-309	.005	standard	
YM - 5-51-53	.005		
" " 128-131	.014		
" " 177-179	.016		
" " 208-211	.020	standard	
" " 237-239	.021		
" " 273-277	.008		
YM 4-407-409	.012	standard	
YM 5-330-335	.006		
YM 2-175-180	.151	coarse gold	
" " 95-100	.035	2nd refiring	.036
" " 50-55	.038	" "	.040

Certified Assays When Signed And Dated

3-28-89 [signature]

DATE SIGNATURE

DRILLING INFORMATION

Contractor DSC
Date drilled 3-30-89
Hole diameter 5 1/4
Inclination V

PROJECT Yarnell
PAGE 1 OF 2
HOLE NO. YM-3
Collar elev. _____ Final depth 250'
Coord. N/S _____ Coord. E/W _____
Logged by M. Miller Date logged 3-30-89

DEPTH from	DEPTH to	int'vl	TRIAD ASSAY Au				Alt/Silic: Clear Qz	Alt/Silic: Hematite Vns	Alt/Silic: Green Silica	Alt/Silic: Biotite	Alt/Silic: Other	Mineralization: Limonite	Mineralization: Lim/Py	Mineralization: Spec Hem	Mineralization: Rock Hem	Mineralization: Other	Fe Ox	REMARKS
0	5		.011				>10	<1	3-4	Tr	-	2-3	-	-	-		<5	
5	10		.014				>10	<1	3-4	Tr-½		2-3	-	Tr?	-		5	
10	15		.018				>10	2		Tr		2-3	-	Tr-½	-		5	Vein Qz, wht Biotite
15	20		.006				20	<1	3+	Tr		2-3	-	Tr	-		5	
20	25		.008				10+	<1	3-4	Tr		2-3	-	Tr	-	-	5	wht Mica, Opaline Qz <½
25	30		.011				>10	<1	2-3+	Tr-½	-	2-3	-	Tr	-	-	5-8	
30	35		.020				>10	<1	3-4			2-3	-	½	-	-	5-8	
35	40		.016				<10	<1	2-3	-		2-3	-	½	-	-	8-10	
40	45		.014				5-8	<1	2-3	-		2-3	-	½	-	-	8?	
45	50		.004				5-8	<1	2-3	Tr		2-3	-	Tr	-	-	8-10	
50	55		Missing				8-10	<1	2-3	-	-	3+	-	½	-	-	8?	Opaline Qz
55	60		.004				8+	<1	2-3	-		2-3	-	Tr	-	-	10	
60	64		.002				5-8	<1	2-3	-		3+	-	1	-	-	10	
65	70		.005				7-10	1	2-3	-	-	4	-	Tr-½	-	-	10-15	
70	75		.012				>10	<1	2-3	-	-	5	-	<1	-	-	10-15	
75	80		.046				>10	<1	3+	-	-	3+	-	<1	-	-	10+	
80	85		.008															
85	90		.008				5-8	1+	3+	-	-	2	-	<1	-	-	<5	Opaline Qz
90	95		.006				>10	>30	2			1	-	<1	-	-	3	Qz Vns Large Qz Frags | Broken fm - Large Chunks →
95	100		.008				>10	+10	2			1-2	-	<1	-	-	4	" " " "
100	105		.005				>10	+30	<2	-	-	2	-	1	-	-		Qz Vns Large Frags w/ Spec Hem Lim in Stylo
105	110		.007				>10	-	<2	-	-	3	-	1	-	-	5	
110	115		.005				>10	-	3	-	-	2-3	-	1	-	-	5	Spec Hem Vns/Hx
115	120		.016				+20	-	<2	-	-	2	-	1			5-10	
120	125		.007				>10	-	<2	-	-	3+	-	1	-	-	5-10	Qz Vns? Large Qz Frags
125	130		.013				10	-	<2	-	-	3	-	1	-	-	5-10	Spec Hem Vns in Qz
130	135		.021				10+	-	<2	-	-	3	-	<1	-	-	5	Sec opaline Qz Tr
135	140		.031				>15	-	<2	-	-	3-8	-	½			10+	
140	145		.047				10	-	<2	-	-	4-8	-	½	-	-	20	→ 147 / 145-147 Sample opaline Qz 147 - Top of Stope
145	147		.092				10	-	<2	-	-	3-8	-	-	-	-	10+	

147-150 NR

150-155 - Mud

2555 frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT Yarwell **HOLE NO.** gm3

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by M. Miller Date logged 3-30-89

DEPTH from	DEPTH to	int'vl	ASSAY Triad Au				Alt/Silic: Clear Qz	White Qz (Vn?)	Green Silica	Bleach	Other	Mineralization: Limonite	Lim/Py	Spec Hm	Red Hm	Other	Fe OX	REMARKS
142	155		.076				Mucl											Stopes Mucl- V. Small Rotten No B No Hg
155	160		.051				Mucl											" " V Small Rotten No B No Hg
160	165		.047				>10	2+	–	–	–	4+	–	<1	–	–	10-15	160 SWITCHED TO TRICONE – Prob Qz Vn?
165	170		.068				>10	1	<1	–	–	4-5	–	1	–	–	15+	
170	175		.091				15+	–	1	–	–	4-5	–	<1	–	–	10-15	
175	180		.055				10	–	1+	–	–	4-5+	Tr	1+2	<1	–	10-15	First Red Hm w/Qz
180	185		.035				10	–	1+	–	–	4-5+	<1	2	–	–	10+-15	
185	190		.073				<10	–	3	–	Poss Calc?	2+	–	<1	–	–	<10	Poss Start of Chloritic Zone as Prev. Holes
190	195		.080															
195	200		.129															
200	205		.016				8	–	2-3	–	–	2+	–	<1	Tr		10	
205	210		.004				8-10	–	2-3	–	–	2-3	–	~1	–	–	10+	
210	215		.003															
215	220		.001				8+	–	2-3	–	–	2-4	–	1	–	–	~8-10	
220	225		.002				10	–	3	–	–	2+	–	~1	3-4	–	10+	Prob Red Qz Vn on Hm Fe Ox?
225	230		.002				10	–	3	–	–	2+	–	Tr2	2	–	10+	" " " " " "
230	235		.001				8+	–	4	Tr	Poss Calc	2+	–	<1	1		5-8	
235	240		.002				8-10	–	4	–	–	2-3	–	1	Tr		8+	
240	245		.001				8-10	–	5	–	–	2-3	–	~1	Tr		8+-10	Poss Lim Vn/Hm/Spec Hm in Qz
245	250		.001				8-10	–	5	–	–	2-3	–	1	–	–	8-10	

TD @ 250'

STANDARDS and B .006? .21 ppm

		Triad
51-53	.006	.004
121-123	.006	.004
161-163	.000	.005

2555 frk

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ. 85358
(602) 684-3816

ASSAY REPORT

DATE 4-3-89 COMPANY Asarco Lab #040289-1

Hole #3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-3 20-25	.008		
" " 25-30	.011		
" " 30-35	.020		
" " 35-40	.016		
" " 40-45	.014		
" " 45-50	.004		
" " 50-55	Missing		
" " 51-53	.004		
" " 55-60	.004		
" " 60-65	.002		
" " 65-70	.005	We recived two of this sample	
" " 65-70	.012		
" " 70-75	.012		
" " 75-80	.046		
" " 80-85	.008		
" " 85-90	.008		
" " 90-95	.006		
" " 95-100	.008		
" " 100-105	.005		
" " 105-110	.007		
" " 110-115	.005		
" " 115-120	.016		

Certified Assays When Signed And Dated
4-3-89 Gary B Eddington
DATE SIGNATURE

TRIAD MINERALS COMPANY
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WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 4-3-89 COMPANY Asarco Lab # 040289-1

Hole #3

Page 3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-3 120-125	.007		
" " 121-123	.004		
" " 125-130	.013		
" " 130-135	.021		
" " 135-140	.031		.058 / 57' (with stop muck)
" " 140-145	.047		
" " 145-147	.092	.06 with muck	
" " 147-155	.076	70'	147' top of stope
" " 155-160	.051		muck
" " 160-165	.047		muck
" " 165-170	.068		rock
" " ~~161-163~~	.005		
" " 170-175	.091		
" " 175-180	.055		
" " 180-185	.035		
" " 185-190	.073		
" " 190-195	.080		
" " 195-200	.129 (4.00)		
" " 200-205	.016		
" " 205-210	.004		
" " 210-215	.003		
" " 215-220	.001		

Certified Assays When Signed And Dated
4-3-89 Greg B. Eddington
DATE SIGNATURE

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ASSAY REPORT

DATE 4-3-89 COMPANY Asarco Lab # 040289-1

Hole #3

Page 4

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-3 220-225	.002		
" " 225-230	.002		
" " 230-235	.001		
" " 235-240	.002		
" " 240-245	.001		
" " 245-250	.001		

Certified Assays When Signed And Dated
4-3-89 Gary B. Eldridge
DATE SIGNATURE

DRILLING INFORMATION

Contractor: DSC
Date drilled: 3-21-89
Hole diameter: 5¾
Inclination: Vert

PROJECT: Yarnell
HOLE NO.: YM #4
Collar elev.:
Final depth: 440'
Coord. N/S:
Coord. E/W:
Logged by: W. Miller
Date logged: 3/21/89 → 3/22/89

DEPTH from	DEPTH to	int'vl	Tr. Ian ASSAY Au				Alt/Silic: % Sil. • ?	% Qz Vns	% Sec/Carb	% Py	Other	Mineralization: % Limonite	% Lim Pseudo	% Spec Hem	% Sulfides	% Red Hem	Other	REMARKS
0	5		.002				>10	2-3	Carb 4	3	–	4-5	–	–	–	–	–	Tr opaline Qz
5	10		.001				>10	3	7	1	–	4-5	–	1	–	Tr-<1	–	
10	15		.008				>10	3-5	Carb/Sec 3	1	–	3	–	–	–	–		
15	20		.025				>10	3	Tr CM 3-4	3	–	2-3	–	–	–	–		
20	25		.01				>10	3	1 CM	1	–	2	–	Tr	–	–		
25	30		.009				>10	3	"	1	–	2-3	–	–	–	Tr		Tr red Hem on Qz
30	35		.012				?	3-4	"	3	–	1-3	–	–	–	Tr		
35	40		.012				–	3-4	"	3	–	3	Tr on Hem	Tr	–	Tr		Rare Py cubes ass. w/ Hem.
40	45		.005				–	3	Tr CM	3	–	3	–	–		–		Pearly Sec Opalescent Qz
45	50		.012				–	3	–	5	–	1-3	–	–	–	–		Tr Opaline Qz
50	55		.013															
55	60		.009				5-10	2	<1	3	–	1-2	–	–	–	–		Common Lt Brown Fe-Ox stain But Prob. Not Limo
60	65		.016															" "
65	70		.01				5	1	5	5	–	1	–	–	–	–		
70	75		.001															" "
75	80		.015				2-3	1	.	1		2-3	–	Tr	–	–		Cinnamon & Spritzer @ 80'
80	85		.006															
85	90		.016				5-6	1	?	34		1-2	–	Tr?	–	–		
90	95		.005															
95	100		.004				5	1	–	1		1-2	Tr	–	–	–		1% opaqescent Qz
100	105		.033															
105	110		.029				10	1	2-3	<1	–	1-2	–	Tr?	–	–		
110	115		.012															
115	120		.003				5-10	1	3	3-4	–	1-2	–	?	–	–		Biotite Begins @ 120' Poss. E.G. Felsic Dike??
120	125		.017															
125	130		.001				5-10	1-2	<1	1		3	–	1				Notable Inc in Lim/Spec Hem
130	135		.019															
135	140		.004				10	1-2	2	1		2-3	–	Tr	–	–		
140	145		.001															
145	150		—				10	–	?	1-2		2-34	–	1?	–	–		

2555 frk

No Bio Pass 170'

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT YARNELL MINE **HOLE NO.**

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by Date logged

DEPTH from	DEPTH to	int'vl	ASSAY Au				ALT/SILIC % Si	% Qz Vns	Sec. Sil. Hematite	Bio	Other	MINERALIZATION					REMARKS
150	[illegible]		.004														
155	160		—				5-8	1-2	2	Tr	—	3-5	—	2			Spec Hm + local Cpy Nz
160	165		.007														
165	170		.003				10	1-2	—	—	—	3-4	1	1-2	—	—	
170	175		.004														
175	180		.016				5	1-2	2	—	—	5-6	Tr	2-3			Lim, Spec Hm X-cutting Vns — Manganese Coating
180	185		.016														
185	190		.02				5	?	1-2	—	—	5-6	1	2-3			As above
190	195		.034														
195	200		.013				10	3	—	—	—	3-4	?	2?	—		
200	205		.012				10	4	2-3	—	—	2-3	—	Tr			
205	210		.006				10	3	2-3	—	—	3-4	—	Tr?			Coarse Limonite on fracs —
210	215		.033				10	3	2-3	—	—	5	—	Tr?			
215	220		.01				10	3	2-3	—	—	7-10	—	Tr			Strong Lim Coating on fracs
220	225		.015				10	2	—	—	—	5-7	—	1+			" " " " w/ Spec Hm
225	230		.005				10	3+				5	—	Tr→1			Coarse Lim Coating
230	235		.01				10	3+	—	—	—	5		Tr→1			
235	240		.004				10	2				5	Tr	Tr?	—	—	
240	245		.003				10	2	—	—	—	7	Tr	1-1			Strong Limonite w/ loc. Spec Hm
245	250		Tr				10	2		1		3	—	Tr			Pits less limonite?
250	255		.007				10	?		Tr		3	—	Tr			Tr Bio — [illegible] Bio Tr
255	260		.008				>10	2-3				3-4	—	Tr→1	—	—	Opaque Qz
260	265		.003				>10	2-3	—	—	—	5	—	Tr			
265	270		.01				>10					3-4	—	Tr		2+	First Red Hematite
270	275		.003				>10	2				5	—	Tr		<½	
275	280		.001				>10					3+				1	
280	285		.009														
285	290		.016				>10	2				2-3		Tr			
290	295		.013														
295	300		.046				>10	2				1+		?			Wk Limonite

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT
HOLE NO. YM-4

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by Date logged

DEPTH from	DEPTH to	int'vl	ASSAY Au				Alt % Si	% Alt Ves	% Sec Str	% Pro	% Chl	Min Lim	Lim/Sp	Spec Hm	Sulfides	Red Hm		REMARKS
300	305		.084															
305	310		.026				>10	?				2-4	-	-	-	-		
310	315		.007				>10					5	-	12				
315	320		.012				>10					5-7	-	1-2	-	-		Good Zone of Lim w/ Spec Hm
320	325		.007									3-5	-	1				
325	330		.002				>10					5-7	-	1-2				
330	335		.001									5/.						
335	340		—				>10	1-2	?	—		5/.		Poss 1-2				Small
340	345		—				>10	1-2	-	-		5		Poss 1-2				
345	350		Tr				>10	1-2+				3-4		Poss 1				
350	355		Tr							Wkt Biu Tr		1-2	-	—				Good Lim w/ Spec Hm
355	360		—				>10	2+	-	Tr?	-	1-2	-	Poss 1				Lim w/ Poss Spec Hm?
360	365		.001															
365	370		.006															
370	375		.006															
375	380		.005															
380	385		.004				>10					2		1				
385	390		.007				>10					2+	-	Hm	-	-		Tr Opaque Qtz
390	395		.002				>10	1	-	-		4-5		2				Good Lim w/ Spec Hm
395	400		.001				>10	2+	-	-		2-3		Poss 1			-	
400	405		.005															
405	410		—				>10	-	3+	-	-	2-3	-	1	-	-		Tr Opaque Qtz
410	415		—															
415	420		—				~10	-	3+	Tr?		2-3	-	<1	-	-	5	V F.G Mica - Poss Amore Chlorite?
420	425		—															
425	430		—				8+	-	4+	-	-	3	-	1-2	-	-	5+	
430	435		.005															
435	440						10	-	4+	-	-	3+		1-2	-	-	5+	Notable Tr in Lim/ Spec Hm
TD @ 440																		

2555 frk

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P. O. BOX 2754
WICKENBURG, AZ 85358

ASSAY REPORT

DATE 3-23-89 COMPANY Asarco Lab # 032389-3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 4-0-5	.002		
" " 5-10	.001		
" " 10-15	.008		
" " 15-20	.025		
" " 20-25	.010		
" " 25-30	.009		
" " 30-35	.012		
" " 35-40	.012		
" " 40-45	.005		
" " 45-50	.012		
" " 50-55	.013		
" " 55-60	.009		
" " 60-65	.016		
" " 65-70	.010		
" " 70-75	.001		
" " 75-80	.015		
" " 80-85	.006		
" " 85-90	.016		
" " 90-95	.005		
" " 95-100	.004		
" " 100-105	.033		
" " 105-110	.029		
" "110-115	.012		

Certified Assays When Signed And Dated
3-23-89
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-23-89 COMPANY Asarco Lab # 232289-3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YY 4-115-120	.003		
" " 120-125	.017		
" " 125-130	.001		
" " 130-135	.019		
" " 135-140	.004		
" " 140-145	.001		
" " 145-150	Nil		
" " 150-155	.004		
" " 155-160	Nil		
" " 160-165	.007		
" " 165-170	.003		
" " 170-175	.004		
" " 175-180	.016		
YY-1-0-5	.005.		
" 1-5-10	.048		
" " 10-15	.004		
" " 15-20	.041		
" " 20-25	.067		
" " 25-30	.010		
" " 30-35	.012		
" " 35-40	.024		
" " 40-45	Nil		
" " 45-50	.023		
" " 50-55	.014		

Certified Assays When Signed And Dated
3-23-89
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-24-89 COMPANY Asarco Lab # 032489-1

Hole # 4 Page 2

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YT 4-180-185	.016		
" " 185-190	.02[illegible]		
" " 190-195	.034		
" " 195-200	.013		
" " 200-205	.012		
" " 205-210	.006		
" " 355-360	NTL		
" " 360-365	.001		
" " 365-370	.002		
" " 370-375	.006		
" " 375-380	.005		
" " 380-385	.004		
" " 385-390	.007		
" " 390-395	.002		
" " 395-400	.001		
" " 400-405	.005		
" " 405-410	NTL		
" " 407-409	.022		Certified Assays When Signed And Dated
" " 410-415	NTL		
" " 415-420	NTL		3-24-89 DATE SIGNATURE
" " 420-425	NTL		
" " 425-430	NTL		
" " 430-435	NTL		

TRIAD MINERALS COMPANY

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ASSAY REPORT

DATE 3-24-89 COMPANY Asarco Lab # 22139-1

Hole # 4	Ounces per ton		Page 4
Sample Description	AU (gold)	AG (silver)	Remarks
YM 4- 210-215	.033		
" " 215-220	.010		
" " 222-224	.015		
" " 220-225	.005		
" " 225-230	.010		
" " 230-235	.004		
" " 235-240	.003		
" " 240-245	TR		

Certified Assays When [illegible]

3-24-89 [illegible]

DATE SIGNATURE

TRIAD MINERALS COMPANY

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(602) 684-3816

ASSAY REPORT

DATE 3-26-89 COMPANY [illegible] Lab # 032[illegible]-1

Hole # 4

Page 5

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
VW 4-116.5-118	.020		
" " 245-250	.006		
" " 250-255	.007		
" " 255-260	.008		
" " 260-265	.003		
" " 265-270	.010		
" " 270-275	.003		
" " 275-280	.002		
" " 280-285	.009		
" " 285-290	.016	.014	
" " 290-295	.013		
" " 295-300	.046		[illegible]
" " 300-305	.084	.052	
" " 305-310	.026		
" " 310-315	.007	.009	
" " 315-320	.012		
" " 318-319	.007		
" " 320-325	.002		
" " 325-330	.001		
" " 330-335	NIL		
" " 335-340	NIL		
" " 340-345	NIL		
" " 345-350	NIL		

Certified Assays When Signed And Dated

3-26-89 [illegible]

DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-[illegible]-89 COMPANY Asarco Lab [illegible]032489-1

Hole 4 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 6 Remarks
YM 4-350-355	TR		
" " 435-[illegible]	.005		
" " 407-409	.008		

Certified Assays When Signed And Dated
3-28-89 [illegible]
DATE SIGNATURE

DRILLING INFORMATION

Contractor: DSC
Date drilled: 3-23-24 1989
Hole diameter: 5 1/4
Inclination: V

PROJECT Yarnell **HOLE NO.** YM-5
Collar elev. ____ Final depth 370'
Coord. N/S ____ Coord. E/W ____
Logged by ____ Date logged 3-23

DEPTH from	DEPTH to	int'vl	ASSAY Au				Alt/Struc Clay Qz	Wht Qz	Sec CM	Py	Other	Min Limonite	Pyrite	Specular	Bornite	Tetra	Cu Oxid	REMARKS
0	5	.	.002				5			B		1-2	–	–	–			
5	10		.001				5			Tr-1		2+						
10	15		.005															
15	20		.001				4-5			3+		<1						
20	25		.001															
25	30		.002							2-3		3	–	+/– 1	Tr	–	15	
30	35		–															
35	40		.001				<3			3-4		2-3	Tr	–	Tr		10	
40	45		.002															
45	50		.001				10			<1		1-2	Tr	–	–		7-10	
50	55		.097				7-10			Tr		2-3	1+	–	–	Tr Au		Tr Au on Qz Remnant sample on DESK
55	60		.069				7-10			–		3	1	2	–	–	10	
60	65		.001															
65	70		.002				5-7			Tr	Tr Wht Bio	2+	<1	1+	–	–	5-10	
70	75		.007															
75	80		.005				3-5			Tr?	–	3-4	–	1+	–	–	>5	
80	85		.001															
85	90		–				5				1% Wht Bio		<1	1	–	–	5-10	Wht Biotite ≈ 1% Purple tint on Py Bornemyite
90	95		.001															
95	100		.002				2-3				–	1	<1	1				
100	105		–															
105	110		–				5-7				–	2	<1	1-2				Opaline Qz.
110	115		.007															
115	120		.005				5-7			Tr		2-3	–	1+				
120	125		.001															
125	130		–				10			Tr		2-3		1+				
130	135		.006															
135	140		–				5-7			–		2-5		3				Strong Spec Nom assay/Limonite
140	145		–				10					1-2		2			CD	
145	150		–				7			–		2-3		1			<10	

2555frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT [illegible] HOLE NO. TA-5

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by Date logged

DEPTH from	DEPTH to	int'vl	ASSAY Th-Lab Au				Alt Silic Chlor Qz	Quart Qz	Sericite	Bio	Other	Minerals Limon	Limon	Spec Hm	Pert Hm	Other	Fe Ox	REMARKS
140	145		.024				10		?	–		5		2				
145	150		.001				10		–	–		4		<1				
150	155		.007				5		Tr	Tr		6-24		2½	Tr		<5	
165	170		.005				5-6			<½		2+		1			<10	
170	175		.003				6+			–		4		<1			<10	
175	180		.001				5-6			Tr		2+		<1			5-7	
180	185		.003				5					3-4		–			5	
185	190		.004				5+			–		2		2–			5-7	
190	195		.003				5					1-3					10	
195	200		.001				5					1-2					5	
200	205		.029				5-6					3		2½			10	
205	210		.045				5					2		–			<5	
210	215		.195				5-6					3–	Tr-½	½			<5	
215	220		.02				5					2		<½			5	
220	225		.001															
225	230		.011				7-10					3-4		–			15	
230	235		.055															
235	240		.006				7-10					3-4		2-1			10-15	Wet Cuttings
240	245		.051				15-20					3-5		2-1			15	
245	250		.013				20					3-5		2-1			5	Limy Spec Hm Vns - in Qz
250	255		.09				20					3-5		2-1			15	
255	260		.024				7-10					5		[illegible]			20	
260	265		.027				7-10					3-4	Tr	Tr	–		15	
265	270		.025				5-6					3		<½			15	Opaline Qz.
270	275		.01				5-6					3-4	<½	<½	–	–	15	
275	280		.013				5-10	–	–		–	3-4		<½			15	
280	285		.014				5	2				2-3	1	–	–		15	
285	290		.065				5-6	–				2	<1				15+	
290	295		.011				5-8					2-3	1	?			15+	Opaline Qz
295	300		NR															Stope No return ↓

2555 frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT YARNELL **HOLE NO.** YM-5

Collar elev. Final depth
Coord. N/S Coord. E/W
Logged by Date logged

DEPTH from	DEPTH to	int'vl	ASSAY Tenor Au				Silic/Alt Clay Qz	Wht Qz	Grey Qz Sol/Cp	Bio	Other	Min Chrysot	Crocid	Spec Hm	Hbd Hm	Other	Fe Oxides	REMARKS
300	305		NR															
305	310		NR															
310	315		NR															STOPE, NO RETURN
315	320		NR															
320	325		NR															
325	330		NR															
330	335		.008			7/10	710		Eq			2	Tr	1	Tr		10	
335	340		.08			<10	<10		2			1-2	-	<1	-		5+L	
340	345		.067			5	5					1-2	-	<1	-		5 ½L	
345	350		.037			5-8	5-8					1-2	Tr	1	-		<L	NOTHING ELSE IN OXIDATION OVERALL –
350	355		.052				5-8	-	3	-	-	1-2	<1	<1	Tr		<L	POSS Tr MNO BUT NOT BIOTITE?
355	360		.006				5-8	-	3	*	-	2	1	<1	Tr		5	* SLT MICACEOUS – POSS CHLORITE?
360	365		.007				8-10	-	3			2-3	-	1	Tr	-	5+	
365	370		.008				10	-	3	-	-			1	Tr		4+	
	TD @ 370'																	
STANDARDS																		
Qz 0m																		
51	53		.008															
128	131		.014															
177	179		.016															
208	211		.02															
232	239		.021															
273	277		.008															

2555 frk

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-26-89 COMPANY Asarco Lab # 032189-1

HOLE # 5	Ounces per ton		Page 1
Sample Description	AU (gold)	AG (silver)	Remarks
YM 5-0-5	.002		
" " 5-10	.001		
" " 10-15	.005		
" " 15-20	.001		
" " 20-25	.001		
" " 25-30	.002		
" " 30-35	NIL		
" " 35-40	.001		
" " 40-45	.002		
"" " 45-50	.001		
" " 50-55	.097		
" " 55-60	.009		
" " 60-65	.001		
" " 65-70	.002		
" " 70-75	.007		
" " 75-80	.005		
" " 80-85	.001		
" " 85-90	NIL		
" " 90-95	.001		
" " 95-100	.002		
" " 100-105	NIL		
" " 105-110	NIL		
" " 1 0-115	.007		

Certified Assays When Signed And Dated
3-26-89 Gary Zelley
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2753
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-20-89 COMPANY Asarco Lab # 032489-1

HOLE # 5 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 2 Remarks
YM 5-115-120	.005		
" " 120-125	.001		
" " 125-130	NIL		
" " 130-135	.004		
" " 135-140	NIL		
" " 140-145	NIL		
" " 145-150	NIL		
" " 150-155	.024		
" " 155-160	.001		

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3-26-89 DATE

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ASSAYING & CONSULTING
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WICKENBURG, AZ 85358
(602) 684-3816

REPORT
-27-89 COMPANY Asarco Lab # 032589-1

OLE #5 le Description	Ounces per ton AU (gold)	AG (silver)	Remarks
M 5-160-165	.007		
" " 165-170	.006		
" " 170-175	.003		
" " 175-180	.001		
" " 180-185	.003		
" " 185-190	.004		
" " 190-195	.003		
" " 195-200	.001		
" " 200-205	.029		
" " 205-210	.045		
" " 210-215	.095		
" " 215-220	.020		
" " 220-225	.001		
" " 225-230	.011		
" " 230-235	.055		
" " 235-240	.006		
" " 240-245	.051		
" " 245-250	.013		
" " 250-255	.090		
" " 255-260	.024		
" " 260-265	.027		
" " 265-270	.025		
" " 270-275	.010		

Certified Assayer
Signed
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

Y REPORT
-27-89 COMPANY Asarco Lab # 032589-2

HOLE # 5 le Description	Ounces per ton AU (gold)	AG (silver)	Remarks
" 5-275-280	.013		
" " 280-285	.014		
" " 285-290	.065		
" " 290-295	.061		
" " 295-330	NO Retrun		
" " 330-335	.004		
" " 335-340	.080		
" " 340-345	.067		
" " 345-350	.037		
350-355	.052		
ole # 2			
2-170-175	.047	This number	was skipped on hole 2 report

Certified Assays When Signed And Dated
3-28-89
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT
DATE 3-30-89 COMPANY Asarco Lab # 032989-1

Hole # 5 Page 5

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 5-350-355	.052	1	
" " 355-360	.006		
" " 360-365	.007		
" " 365-370	.008		
Refires			
YM 4-420-425	NIL		
YM 4-435-440	.004		

Certified Assays When Signed And Dated
3-30-89
DATE SIGNATURE

127-129 10 Lept Stainnot
235-239

DRILLING INFORMATION

Contractor: Drilling Services Co.
Date drilled: 3-28-89
Hole diameter: 5¼"
Inclination: V

PROJECT Yarnell **HOLE NO.** YM-6

Collar elev. _____ Final depth 400'
Coord. N/S _____ Coord. E/W _____
Logged by M. Amilcar Date logged 3-28-89

DEPTH from	DEPTH to	int'vl	ASSAY TRIAD Au				ALT/SILI Clear Qz	Clap Vn Qz	Green Fuchs	Brown	Other	MINERALIZATION Limonite (LTD Dark Brown)	Cuprite	Spec Hem	Red Hem	Other	Origin	REMARKS
0	5		.016				>10	3-4?	-	-	-	2-4	-	-	-	-	15	
5	10		.002				>10	2-3	-	Tr		3	Tr?	-	-	-	15	
10	15		.003				>10			-		3	-	Tr	Tr		15	Tr red Stain on Qz
15	20		.002				>10			Tr		4-5	Tr	-	-		15	
20	25		.009				>10			-		3-4	-	-	-		15+	
25	30		.004				>5			-		3+	-	-	-		15	opaline Qz
30	35		.003				>10			1-2		3+	-	-	-			
35	40		.002				5-7			Tr		3+	-	-	-		10	
40	45		.003				5-7			1		2-3	-	-	Tr		<10	
45	50		.005				5-7	<1		-		2-3	-	-	-		>10	opaline Qz
50	55		.002				>10	5		-		3-4	-	Tr	-		>10	Large WHT Qz Pieces Vn?
55	60		.002				>10	2		-		4	-	-			15+	Large WHT Qz Pieces
60	65		.001															
65	70		.001				≥7	2	-	-		4-5	-	Tr-<1			15	
70	75		.002															
75	80		.001				5	2	-	Tr?		4+	-	Tr	-		10+	
80	85		.001				5											
85	90		.002				5			-		3	-	<½	-		15+	
90	95		.007															
95	100		.003				5			Tr-		3-4	Tr?	<½	-	-	15-20	
100	105		.002															
105	110		.016				20					2-3		Tr-<½			10	Limonite on Qz
110	115		.003															
115	120		.003				5-10+	<1	3-5	-	-	2-3		1			10	
120	125		.007															
125	130		.01				5-10	<1	~1	-	-	3	-	<1	Tr		10-15	
130	135		.012															
135	140		.069				10+	<1	~1	-	-	3-4	-	<1	-		10+	
140	145		.016															
145	150		.007				>15	<1	Tr	-	-	1-2	-	<1	-	-	~5	

2555 frk

DRILLING INFORMATION

Contractor: DSC
Date drilled: 3-28-89
Hole diameter: 5½
Inclination: Vert

PROJECT: Garnell
HOLE NO.: YM-6
Collar elev.:
Final depth:
Coord. N/S:
Coord. E/W:
Logged by: M. Miller
Date logged:

DEPTH from	DEPTH to	int'vl	ASSAY opt. Au	Refine	Sulfide	Silic/Alt: Clear Qz	Wht Qz (Vns)	Green Silica?	Biotite	Other	Mineralization: (Lt+Dk Brn) Limonite	Lim/Py	Spec Hm	Red Hem	Other	Fe Oxides	REMARKS
150	155		.057														
155	160		.017			5-7	–	3	–	–	3-4	1	<1	–	–	<10	
160	165		.055														
165	170		.057			7/10	5	3	–	–	3-4	<½	<1	–	–	10-15	
170	175		.012														
175	180		.155	.056		5+	5-7	3+	–	–	5+	<1	~1	–	–	15-20*	Red Brn Limonite Cubes
180	185		.017														
185	190		.004			8-10	–	2-3	–	–	5+	<½	2	Tr	–	10+	
190	195		.009														
195	200		.004			~10	<1	2+	–	–	5+	–	1-2	–	–	10+	
200	205		.006														
205	210		.006			8-10	<1	~1	–	–	4+?	Tr	1+	–	–	20+	
210	215		.01														
215	220		.025			10+	1-2	1	–	–	5			Tr		20-30	
220	225		.024														
225	230		.033			5-8	3+				3-4	–	1?	~1		20	Loc Hm on Qz? Mod Abu Wht Vn Qz
230	235		.005														
235	240		.003			8-10	<1	1			2-4	–	<½	<1		15-20	
240	245																
245	250		.003			8-10	4-5	<1	–	–	4+		2-3	1+2		15-20	Spec Hm x-cutting vnlts in Qz w/ Tr red Hm
250	255		.005														
255	260		.006			8-10+	<<1	4-5+	–	–	2-3	–	2+	–		20-25+	
260	265		.003														
265	270		.004			8+	<1	3+	–	–	2-3+	–	<1	–		20-25+	
270	275		.048														
275	280		.132			5-8	1	3+	–	–	1-3	–	<½	–		10	
280	285		.004														
285	290		.007			5-8	<1	4-5			2-4	–	1	Tr-½		10	
290	295		.004														
295	300		.003			5+	–	3-4			1-2+	–	<<½	–		<5	Lt/M Brn Limonite Vnlts in Qz Lt Tan-Lim Stain

2555frk

DRILLING INFORMATION

Contractor: DSC
Date drilled: 3/28/89
Hole diameter: 5¼
Inclination: Vert

PROJECT: YARNELL
HOLE NO.: YM-6
Collar elev.:
Final depth:
Coord. N/S:
Coord. E/W:
Logged by: M. MILLER
Date logged: 3/28-29/89

DEPTH from	DEPTH to	int'vl	TRIAD ASSAY Au				Silica/Alt: Clear Qz	White Qz (Vein)	Green Sericite	Biotite	Other (Tr Dk Brn) Limonite	Mineralization: Lim/Py	Spec Hm	Red Hm	Other	Fe Oxides	REMARKS
300	305		.005				3-5+	–	3-4	–				Tr-<½	Tr Py	<2	Tr Py Oxide / Sulfide Contact-
305	310		.002				5-8	–	2-3	–	–	<1	2	<1%	Tr Py	<2	<½% Py Red Hematite
310	315		.004				5+	–	–	–	4-5% Chl	<1	5-7		1% Py		Tr Py → 1% Py – <BD Chl – Rose/Or Tint bd Qz
315	320		.003				3-4	–	–		Chlorite 1-2	<1	–	3	–	Py 1%	<2	Poss Intrusive w/ Py → 1%
320	325		.002				4-5		–		Chl. 4-5	<1	3-5+			Py		Poss Intrusive Also Chlorite Py ~ 1% As cubes w/ Asp
325	330		.002				5-10	–	3-4	–	Chlorite	1		3+	–	Tr Py	<2	Tr → 1% Red Mineral Poss Hm Qz is Rose Tint or
330	335		.003				5-10		3-4		Chlorite			3-5		Py<½		Some Intrusive Py
335	340		.002				5-10	–	3-4	–	Chlorite	1	–	3-5	Tr	Tr Py	<2	Poss Intrusive w/ Chlorite
340	345		.001														
345	350		.003				5-10	–	3-4+		Chl	1	–	3-5	Tr		<2	" " "
350	355		.002														
355	360		.004				2-3	–	4-5		Chl	1		3-<		½ Py	<2	Poss Diorite Frags – ~½% Py ? Spec Hm – Metallic Gy
360	365		.003														
365	370		.005				5+	–	<1	–	–	3+		1-2	–	–	15	Back into Oxid Rk.
370	375		.003														
375	380		.002				5-10	–	4-5	–	–	2+	–	<1	–	–	5	
380	385		.002														
385	390		.001				5+		3-4	–	–	2-3	–	<1	–	–	10+	
390	395		.001														
395	400		N.C.				3	–	3-4		Chl 4-5	<1		3+			<1	Unoxidized Rock
3																	
				TD @ 400'													

STANDARD: .022 opt Sample

Interval	Assay
56-59	.004
127-129	.004
238-239	.003
351-383	.014

2555 frk

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-30-89 COMPANY Asarco Lab # 032989-2

Hole # 6 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 1 Remarks
YM 6-20-25	.009		0-5 .016
" " 25-30	.004		5-10 .005
" " 30-35.	.003		10-15 .003
" " 35-40	.002		15-20 .002
" " 40-45	.003		
" " 45-50	.005		
" " 50-55	.002		
" " 55-60	.002		
" " 60-65	.001		
" " 56-59	.004		
" " 65-70	.001		
" " 70-75	.002		
" " 75-80	.001		
" " 80-85	.001		
" " 85-90	.002		
" " 90-95	.007		
" " 95-100	.003		
" " 100-105	.002		
" " 105-110	.016		
" " 110-115	.002		
" " 115-120	.003		
" " 120-125	.007		
" " 127-129	.004		

Certified Assays When Signed and Dated
3-30-89
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE [illegible] COMPANY [illegible]

Hole # 6 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 2 Remarks
" " 125-130	.01[illegible]		
" " 130-135	.012		
" " 135-140	.069		
" " 140-145	.018		
" " 145-150	.007		
" " 150-155	.057		
" " 155-160	.017	30' @	
" " 160-165	.055		
" " 165-170	.057		
" " 170-175	.012		
" " 175-180	.1[illegible] cut .05		
" " 180-185	.017		

Certified Assays When Signed And Dated

3-30-89 [illegible]

DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 3-31-89 COMPANY Asarco Lab # 033089-2

Hole # 6 Page 3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 6-185-190	.004		
" " 190-195	.009		
" " 195-200	.004		
" " 200-205	.006		
" " 205-210	.006		
" " 210-215	.010		
" " 215-220	.025		
" " 220-225	.024		
" " 225-230	.033		
" " 230-235	.005		
" " 235-240	.003		
" " 237-239	.003		
" " 245-250	.003		
" " 250-255	.005		
" " 255-260	.006		
" " 260-265	.003		
" " 265-270	.004		
" " 270-275	.048		
" " 275-280	.132	Refiring	
" " 280-285	.004		
" " 285-290	.007		
" " 290-295	.004		
" " 295-300	.003		

Certified Assays When Signed And Dated
4-89
DATE SIGNATURE

TRIAD MINERALS COMPANY
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P.O. BOX 2754
WICKENBURG, AZ 85358
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ASSAY REPORT
DATE 3-31-89 COMPANY Asarco Lab # 033080

Hole # 6 Sample Description	Ounces per ton AU (gold)	AG (silver)	Page 4 Remarks
YM 6-300-305	.005		
" " 305-310	.002		
" " 310-315	.004		
" " 315-320	.003		
" " 320-325	.002		
" " 325-330	.003		
" " 330-335	.003		
" " 335-340	.002		
" " 340-345	.001		
" " 56-59	.004	refire	
" " 175-180	.156	refire	
" " 345-350	.003		
" " 350-355	.002		
" " 355-360	.004		
" " 360-365	.003		
" " 365-370	.005		
" " 370-375	.003		
" " 375-380	.002		
" " 380-385	.002		
" " 381-383	.014		
" " 385-390	.001		
" " 390-395	.001		
" " 395-400	NIL		

Certified Assays When Signed And Dated
3-31-89 Eva B Eldon
DATE SIGNATURE

PROJECT YARNELL HOLE NO. YM-7

Collar elev. _____ Final depth 292'

Coord. N/S _____ Coord. E/W. _____

Logged by M.A. MILLER Date logged 3-29-89

DRILLING INFORMATION

Contractor DSC
Date drilled 3-29-89
Hole diameter 5 1/4"
Inclination V

DEPTH from	DEPTH to	int'vl	TREAD ASSAY Au				ALT IS INCL. Clear Stretch	White Bx (Vns)	Green Stretch	Bio	Other	MINERALIZATION Limonite	Cin/Py	Specs Film	Pb/Zn	Other	Fe Ox	REMARKS
0	5		.008				5-6			Tr		3		Tr	-	-	10	
5	10		.002															
10	15		.003															
15	20		.007				6-10	2	-	-		3	Tr	Tr			15	
20	25		.013															
25	30		.005				5-6	2	9?	-		3	1	Tr			10	
30	35		.003															
35	40		.002				5-6	1	-	-		3-4	Tr	Tr			10+	
40	45		.005															
45	50		.002															Combined samples 45-55
50	55																	
55	60		.018				7-10	-	4			3-4	2	Tr	-		<7	Obviously Cu bearing
60	65		.004															
65	70		.007				7-10	2	7-8			3-4	1	1	-		10	
70	75		.004															
75	80		.003				7-10					5	1	Tr-1			10+	
80	85		.002															
85	90		.003				8-10	1-2	3-4			4	-	1+			<10	
90	95		.001															
95	100		.012				7-10	1	5			3-4	Tr	2+?	-	-	5-7	
100	105		.002															
105	110		.008				7-10	1	4-x	-	-	3	-	1+/-	-	-	<10	
110	115		.003															
115	120		.004				8+	1/2	5+			2	-	1+	-	-	<10-<5	
120	125		.003															
125	130		.005				5	-	5+	-		3	-	<1	-	-	<10	Sparse Qz
130	135		.003							-								
135	140		.004				5-7	-	2-3	-		4	-	<1	-	-	+10	
140	145		.004															
145	150		.008				5-8	<1	3<	-	-	3-4	-	<1	-		10+-n	

2555 frk

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
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WICKENBURG, AZ 85358
(602) 684-3816

SAY REPORT
E 3-31-89 COMPANY Asarco Lab # 033089-2

Hole # 7 ple Description	Ounces per ton AU (gold)	AG (silver)	Page 1 Remarks
ZM 7-0-5	.008		
" " 5-10	.002		
" " 10-15	.003		
" " 15-20	.007		
" " 20-25	.013		
" " 25-30	.005		
" " 30-35	.003		
" " 35-40	.002		
" " 40-45	.005		
" " 45-55	.002		
" " 53-57	.004		
" " 55-60	.018		
" " 60-65	.004		
" " 65-70	.007		
" " 70-75	.004		
" " 75-80	.003		
" " 80-85	.002		
" " 85-90	.003		
" " 90-95	.001		
" " 95-100	.012		
" " 100-105	.002		
" " 105-110	.003		

Certified Assays When Signed And Dated
3-31-89
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
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(602) 684-3816

AY REPORT

E 4-1-89 COMPANY Asarco Lab # 040189-2

Hole #7

Page 2

ple Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 7-110-115	.003		
" " 115-120	.004		
" " 120-125	.003		
" " 125-130	.005		
" " 130-135	.003		
" " 135-140	.004		
" " 140-145	.004		
" " 145-150	.008		
" " 150-155	.007		
" " 155-160	.024		
" " 151-153	.004		
" " 160-165	.016		
" " 165-170	.034		
" " 170-175	.091	.05	
" " 175-180	.055		
" " 180-185	.142	.05	
" " 185-190	.020		
" " 190-195	.011	.01	
" " 195-200	.053		

Certified Assays When Signed And Dated
4-1-89 B Ellen
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

Y REPORT
-89 COMPANY Asarco Lab #040189-2

Hole #7

le Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 7 200-205	.036		
" " 205-210	.042		
" " 210-215	.062	.042	
" " 217-219	.003		
" " 215-220	.056		
" " 220-225	No Return		
" " 225-230	.022		
" " 230-235	.013	.017	
" " 235-240	.010		
" " 240-245	.022	↑	
" " 245-250	.010		
" " 250-255	.013		
" " 255-260	.019		
" " 260-265	.008		
" " 265-270	.003		
" " 270-275	.002		
" " 275-280	.008		
" " 280-285	.005		
" " 285-290	.003		
" " 290-292	.002		
6 275-280	.118	Refire	

Certified Assays When Signed And Dated
4/15/89 Greg B Ellis
DATE SIGNATURE

DRILLING INFORMATION

Contractor: DSC
Date drilled: 3-31-89
Hole diameter: 5 1/4"
Inclination: V

PROJECT YARNELL **HOLE NO.** YM-8

Collar elev. _____ Final depth 350'
Coord. N/S _____ Coord. E/W _____
Logged by M. Miller Date logged 3-31-89

DEPTH from	DEPTH to	int'vl	TRUP ASSAY Au OP/T				Alt/Sulfic: Cigar Qz	White Qz Vnl	Sm Qz Green Sericite	Biotite	Other	Mineralization: Limonite	Py/Lim	Spec Lim	Red Lim	Other	Fe Ox	REMARKS
0	5		.004				4-5	3	2	3+		Tr	Tr	-	-		10	
5	10		.013				4-5	2+	2	3	-	2	Tr-½	-	-		5	
10	15		.027				F											
15	20		.002				4-5	<1	2-4	3		2-3	1	-	-		5	
20	25		.008															
25	30		.004				4-5	<1	2-3	2-3		3+	<½	<1	-	-	5-6	
30	35		.037															
35	40		No Fnc .212	Rerun .235			10	<1	3	2+		3	-	<1	-	-	<5	Sm Opalescence
40	45		.015															
45	50		.02				10	<1	3-4 (S)	<1	-	2-3	Tr	<<1	-	-	<5	Poss Conn Qz WHT Biotite
50	55		.044															
55	60		.01				<8	<1	3-4 (S)	<1½	-	2	-	<<1	-	-	<<5	
60	65		.004															
65	70		.022				8-10	<1	3+ (S)	-	-	2-3	Tr	<½	-	-	5+	
70	75		.01															
75	80		.037				5-6	<1	3-4 (S)	<½	-	2-3	Tr	-	1-2		5	Red Hematite 1-2% w/ Lic Py casts
80	85		.008															
85	90		.011				5-6	<1	4-5 (S)	-	-	2	Tr	<1	Tr		5	
90	95		.012															
95	100		.015				5-6	<1	4-5 (S)	<½		1-2	-	~1	-		<5	Mosy as WHT Biotite
100	105		.004															
105	110		.01				5-6	<1	4-5 (S)	<1		2	-	1-1½	-		8	
110	115		.011															
115	120		.033				8+	<1	4-5 (S)	Tr	-	2-	-	~1	-		10	
120	125		.005															
125	130		.011				8+	<1	3	Tr		3-4	-	1+	-	-	15	
130	135		.047															
135	140		.017				8-10	TR	3-4	-	-	3-4	1+	Tr	-	-	10	
140	145		.004															
145	150		.004				8-10	-	3-4	Tr	-	3-4	-	1+	-	-	8-10	

2555 frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT YORNELL HOLE NO. YM-8

Collar elev. Final depth
Coord. N/S Coord. E/W.
Logged by Date logged

DEPTH from	DEPTH to	int'vl	TRIAD ASSAY Au				Alt/Silic: Eight Qz	Wht Qz	Green Silica (SGR)	Bio	Other	Mineralization: Cinnabar	Py	Sphalerite	Red Film	Other	Fe ox	REMARKS
150	155		.02				8-10	-	3-4	-	Pos Cmo Qz	1-2	-	Tr	-	4	5	Pos Cm Qz < 1%
155	160		.043				8-10	-	3-4		Pos Cmo Qz	1-2	-	Tr	-	8	8	
160	165		.008															
165	170		.047				10-	1+				1-2	-	Tr?	-	5%	5-8	
170	175		.016															
175	180		.016				5-8	-	3-4	-	-	2-3+	-	½	-	-	5	
180	185		.029															
185	190		.008				5-8	-	3-4	-	-	2-3+	Tr	½	Tr-½	-	5-10	Tr red Hm - Hm Py Cast? Sil Opaline Qz
190	195		.009															
195	200		.019				5-8	-	3-4	-	-	2-3	Tr	½	Tr	-	8-10	Opaline Qz ~ 1% of Frac
200	205		.012															
205	210		.005				10	-	3-4	-	-	3?	-	½	Tr	-	8	
210	215		.019															
215	220		.01				8-10	-	4-5	-	-	3-4	Tr	1+	Tr	-	8?	
220	225		.004															
225	230		.047				5-8	-	3-4	-	-	3-4	-	1	Tr	-	8-10	
230	235		.044															
235	240		.029				5-10	-	3½	-	-	3½	-	Tr	-	-	8	
240	245		.019															
245	250		.013				10+	-	3	-	-	2-3	½ Tr	Tr	-	-	5-8	
250	255		.048															
255	260		.087				10	-	<1	-	-	3-4	Tr	1	1		10	Mod Arg red Hm on Qz
260	265		.063															
265	270		.023				8-10	-	-	-	-	3½	Tr	1	½-1			
270	275		.037															
275	280		.004				25	-	-	-	-	5-6	-	<½	Tr		15	Tr Au on red Hm Stain Cg Intrusive?
280	285		.004															
285	290		.002				5	1	-	-	-	3-4	-	1	-	-	3-4	
290	295		.003															
295	300		.004				5-8	1-2	-	-		3-4	-	1	-	-	5+	Pos Cm Qz Some WH + V-Qz

2555 frk

DRILLING INFORMATION

Contractor
Date drilled
Hole diameter
Inclination

PROJECT
HOLE NO. YM-8

Collar elev. Final depth
Coord. N/S Coord. E/W.
Logged by Date logged

DEPTH from	DEPTH to	int'vl	Trace ASSAY Au				Clear Qz	Wht Qz Vns	Green Silica	Biotite	Other	Limonite	Lim Py	Spec Hm	Red Hm	Other	FeOx	REMARKS
300	305		.004															
305	310		.003				10	–	4+ (5)	–	–	3	2	1	–	–	20	
310	315		.005															
315	320		.003				10	–	4+ (6)	–	–	3	–	1½	–	–	10	Lt Brn Limonitic Vn/stockwk Qz – Poss Tr (Au) on Qz w/Py
320	325		.005															
325	330		.004				8	–	5+ (5)	–	–	3½	–	<1	–	–	10-15	Tr Py on Qz v. small quartz
330	335		.003															
335	340		.005				5-6	–	5-10 (5)	–	–	3½		1	4/4		10-14	Tr Red Hm w/ Spec Hm on Qz
340	345		.002															
345	350		.002				5-6	–	5-10	–	–	3½		<1	<1/4		15+	Tr Red Hm
	TD @ 350'																	

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TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT
DATE 4-3-89 COMPANY Asarco Lab # 040289-1

Hole #8

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-8 0-5	.004		
" " 5-10	.003		
" " 10-15	.027		

Certified Assays When Signed And Dated
4-3-89 [illegible]
DATE SIGNATURE

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(602) 684-3816

ASSAY REPORT

DATE 4-4-89 COMPANY Asarco Lab #040489-2

Hole # 8 page 2

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-8 15-20	.002		
" " 20-25	.008		
" " 25-30	.004		
" " 30-35	.037		
" " 35-40	.212	Refiering	
" " 40-45	.015		
" " 45-50	.020		
" " 50-55	.044		
" " 55-60	.010		
" " 60-65	.004		
" " 65-70	.023		
" " 70-75	.010		
" " 75-80	.037		
" " 80-85	.008		
" " 85-90	.011		
" " 90-95	.012		
" " 95-100	.015		
" " 100-105	.004		
" " 105110	.010		
" " 110-115	.011		
" " 115-120	.033		
" " 120-125	.005		

Certified Assays When Signed And Dated
4-4-89 [illegible]
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(602) 684-3816

ASSAY REPORT

DATE 4-4-89 COMPANY Asarco Lab # 040489-2

Hole #8

page 3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-8 125-130	.011		
" " 130-135	.047		
" " 135-140	.017		
" " 140-145	.004		
" " 145-150	.004		
" " 150-155	.020		
" " 155-160	.043		
" " 160-165	.008		
" " 165-170	.047		
" " 170-175	.014		
" " 175-180	.016		
" " 180-185	.029		
" " 185-190	.004		
" " 190-195	.009		
" " 195-200	.019		
" " 200-205	.012		
" " 205-210	.005		
" " 210-215	.019		
" " 215-220	.010		
" " 220-225	.004		
" " 225-230	.047		
" " 230-235	.044		
" " 235-240	.029		

Certified Assays Wine
Signed And Dated
4-4-89 [illegible]
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 4-4-89 COMPANY Asarco Lab #040489-2

Hole #8 page 4

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-8 240-245	.018		
" " 245-250	.013		
" " 250-255	.048		
" " 255-260	.087		
" " 260-265	.063		
" " 265-270	.023		
" " 270-275	.037		
" " 275-280	.004		
" " 280-285	.005		
" " 285-290	.002		
" " 290-295	.003		
" " 295-300	.004		
" " 300-305	.004		
" " 305-310	.003		
" " 310-315	.005		
" " 315-320	.003		
" " 320-325	.005		
" " 325-330	.004		
" " 330-335	.003		
" " 335-340	.005		
" " 340-345	.002		
" " 345-350	.002		

Certified Assay
Signed And Dated
4-4-89 Gary B. Eklund
DATE SIGNATURE

DRILLING INFORMATION

Contractor: DSC
Date drilled: 4-1-89
Hole diameter: 5 7/8
Inclination: V

PROJECT: YARNELL
HOLE NO. YM-9
Collar elev.:
Final depth: 350'
Coord. N/S:
Coord. E/W:
Logged by: M. MILLER
Date logged: 4/1/89

DEPTH from	DEPTH to	int'vl	TRIAD ASSAY Au				ALT / SILIFICATION Chlor Sericite	Wht Qtz	Green Silica	Brown Silica	Other	MINERALIZATION Cinnabar	Pyrite	Iron Oxide	Bright Iron	Other	FeO %	REMARKS
0	5		.003															
5	10		.005				10	-	3-4	Tr	-	3	-	Tr	-	-	<10	WHT BIOX
10	15		.004															
15	20		.007				~10	-	3-4	-		2-3	-	Tr	-	-	<10	
20	25		.017															
25	30		.009				+12	-	3-4	Tr	-	3	-	Tr	-	-	10	
30	35		.003															
35	40		.034				5-10	~~3-4~~	3-5	-		3	1	1	-	-	10	
40	45		.015															← Stope 40-48±
45	50		.014															Small 10'x10' Pocket 2' opening Probable Stope
50	55		.005															
55	60		.005				10	-	3-4	-	-	4-5	Tr	1-2	-	-	15	
60	65		.007															
65	70		.01				10	-	5-7	-	-	3-4	Tr	1	-	-	10	
70	75		.004															
75	80		.001				6-8	-	5-7	-	-	2-3	-	<1	-	-	10	
80	85		.014															
85	90		.032				15	-	3-4	-	-	5	-	<1	-	-	10	
90	95		.005															
95	100		.004				10	-	3	-	-	5		+1/2	-	-	10	
100	105		.01															
105	110		.006				5-10	-	3	-	-	9	-	1	-	-	20	
110	115		.007															
115	120		.005				5-8	-	3	-	-	3-4	-	<1	-	-	10	
120	125		.003															
125	130		.002				~8-12	-	3-4	-	-	5	-	~1-2	-	-	15	
130	135		.004															
135	140		.004				6-8	-	3-4	-	-	5-6	-	+2	-	-	20	
140	145		.007															
145	150		.007				6-8	-	3-4	-	-	4-5	-	1	-	-	15	

2555frk

DRILLING INFORMATION

Contractor: DSC
Date drilled: 4-1-89
Hole diameter: 5½
Inclination: V

PROJECT: YARNELL
HOLE NO. ym-9
Collar elev.:
Final depth: 350'
Coord. N/S:
Coord. E/W:
Logged by:
Date logged: 4-1

DEPTH from	DEPTH to	int'vl	ASSAY Au				Alt/Silic Clear Qz	Wht Qz Vn	Green Si	Bio	Other	Mineralization Lim	Lim Py	Spec Hm	Red Hm	Other	Fe Ox	REMARKS
150	155		.004				10	-	2-3	-	-	4	-	Tr	-	-	15	
155	160		.002				10	-	2-3	-	-	3	-	-	-	-	10	
160	165		.001															
165	170		.001				10	-	3	-	-	3	-	½	-	-	5	
170	175		.007															
[illegible]	180		.005				10	-	3	-	-	3	-	½	-	-	5	
180	185		.008															
185	190		.01				10	2	2	-	-	3	-	Tr	Tr	-	5-10	
190	195		—															
195	200		—				10		2-3	-	-	3+	-	Tr	Tr		5-10	
200	205		.008															
205	210		—				5-10		2-3			5	-	<½	Tr		10	More Aru Lim Coatings
210	215		—															
215	220		.01				8+		2-3			5		<½			5-10	Aru Lim Bit Not Spec Hm
220	225		.002															
225	230		.003				5-10		8			3+		<½	Tr		5	Notable Lim in Seams
230	235		.002															
235	240		.018				10	-	6-7	-	-	3		<1	Tr		<4	
240	245		.007				30+	-	4	-	-	3		½			<4	
245	250		.004				40		4	-	-	3		½	-		<4	
250	255		.004				20+		1	-	-	4		½	-		<4	
255	260		.003				10-15		31	-	-	4		1	-	-	<8	
260	265		.002				10		4			4	-	½	-	-	5-10	
265	270		.002				20-30	48	<1			3		<1			8-10	Rare 2% ½ Qz Vn
270	275		.006				10		3			3		<1			<10	
275	280		.012				10-15	-	<2			3	-	-			10+	
280	285		.01				50%		-			1-2	-	-	-		<4	Stmy Qz Zone 350 Y. Qz
285	290		.017				10+	-	<2			3	1	8	5		20	Stmy Red Hm on Qz w Poss D.D Fault 20' Surface ↑ Outcrop
290	295		.027				10+	-	3			2	<	2	3	Tr		Tr Py w/ Red Hm
295	300		.087				10+	-	3			1	-	Tr	2	1/2 Bn		1% Py - Poss Tr Bn in Qz w/ Hm.

2555 frk

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 4-4-89 COMPANY Asarco Lab# 040489-2

Hole # 9

page 1

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-9 0-5	.003		
" " 5-10	.005	—	
" " 10-15	.004		
" " 15-20	.007		
" " 20-25	.017		
" " 25-30	.009		
" " 30-35	. Lost Bead Refiering		
" " 35-40	.034		
" " 40-45	.015		
" " 45-50	.014		
" " 50-55	.005		
" " 51-53	Lost Bead	Refiering	
" " 55-60	.005		
" " 60-65	.003		
" " 65-70	.010		

ASARCO Incorporated
APR 4 1989
SW Exploration

Certified Assays Who
Signed And Dated
4-4-89 [illegible]
DATE SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 4-5-89 COMPANY Asarco Lab # 040589-3

Hole #9 page 2

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-9 51-53 RF	.008		
" " 70-75	.004		
" " 75-80	.001		
" " 80-85	.014		
" " 85-90	.032		
" " 90-95	.005		
" " 95-100	.004		
" " 100-105	.010		
" " 105-110	.006		
" " 110-115	.007		
" " 115-120	.005		
" " 120-125	.003		
" " 125-130	.002		
" " 130-135	.004		
" " 135-140	.004		
" " 140-145	.003		
" " 145-150	.003		
YM-8 35-40 RF	.232		

Certified Assays Within
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4-5-89 [illegible]
DATE SIGNATURE

APR 5 1989
SW Exploration

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 4-6-89 COMPANY Asarco Lab # 040689-1

Hole #9

page 3

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-9 153-154	.009		
" " 150-155	.004		
" " 155-160	.002		
" " 160-165	.001		
" " 165-170	.001		
" " 175-180	.005		
" " 185-190	.010		
" " 190-195	.nil		
" " 195-200	.nil		
" " 200-205	.009		
" " 205-210	.nil		
" " 210-215	.nil		
" " 215-220	.010		
" " 220-225	.002		
" " 225-230	.003		
" " 230-235	.002		
" " 237-239	.nil		
" " 235-240	.018		
" " 240-245	.007		
" " 245-250	.004		
" " 250-255	.004		
" " 255-260	.003		

Certified Assays When Signed And Dated
DATE 4-6-89
SIGNATURE

TRIAD MINERALS COMPANY
ASSAYING & CONSULTING
P.O. BOX 2754
WICKENBURG, AZ 85358
(602) 684-3816

ASSAY REPORT

DATE 4-6-89 COMPANY Asarco Lab #040689-1

Hole " 9

page 4

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM-9 260-265	.002		
" " 265-270	.002		
" " 270-275	.006		
" " 275-280	.012		
" " 280-285	.010		
" " 285-290	.017		
" " 290-295	.027		
" " 295-300	.087		
" " 300-305	.061		
" " 305-310	.046		
" " 310-315	.020		
" " 315-320	.006		
" " 320-325	.009		
" " 325-330	.006		
" " 331-332	.026		
" " 330-335	.006		
" " 335-340	.005		
" " 340-345	.005		
" " 345-350	.004		

Certified Assays When Signed And Dated
4-6-89
DATE
SIGNATURE

ASARCO

Southwestern Exploration Division

JDS

May 11, 1989

M.A. Miller

Tons Mined
Yarnell Project
EA-0444
Yavapai County, AZ

To get a more accurate impression of the tons mined from the Yarnell Mine, you should measure the amount of tailings left at Yarnell.

Also recatalogue all the statements of production which you have gathered from various sources to support the impression of production.

You might also try to attach some independent figure based on your knowledge and plans of the workings.

James D. Sell

JDS:mek

cc: W.L. Kurtz

5/11/89

FROM: W. L. KURTZ

Camp Douglas Reports
Skidmore
Crowell
Jansen

TO: JC BALLA
DM SMITH
JD SEE

Some data generated that may be useful to you in your heap leach evaluations

ASARCO

Southwestern Mining Department

December 2, 1988

MEMO TO: R. J. Kupsch

RE: CAMP DOUGLAS PROJECT - MINERAL COUNTY, NEVADA

The Mining Department work on the project is complete and the results are as follows:

1. Ore Reserve: 675,000 TONS
   0.044 OPT GOLD
   3.34 Stripping Ratio

   Basis: $450.00 Gold
   55 Degree Pit
   plus 0.01 OPT Gold

2. Recoverable Gold - 20,790 Ounces

3. Economics:

	Revenues - Net	$3,456,000
	Option Payment	1,800,000
*	Plant Cost	1,350,000
	Net after Capital Recapture	$ 306,000

On a one year Life -
20% NPV = $-270,000
ROI 9.7%

* Other costs that may be required are not included (lands for plant and heaps, closure, water if not available one site).

The Engineering Computer Group worked very hard to determine suitable modeling parameters for this project. The resulting N70°W elliptical block model has reasonable correlation with the defining drilling recently designed and completed by the undersigned. Therefore, the model should be accepted as a reasonable representation of the ore body mineralization with the data available at this time.

It would appear that this project would not stand the test of a solid investment opportunity for the Company.

More data and information can be made available if required.

David F. Skidmore

DFS/mck
encls.
cc: RLBrown - w/encls.
FTGraybeal - " "
TEScartaccini - " "
PGVikre - " "

bcc: FKoutz - " "

NOTE: 1.) Mining Cost @ $1.00 T-MATL.
2.) Plant Cost @ $440 T-ORE (DEC memo)

Enclosur

CAMP DOUGLAS PROJECT
30-NOV-88 11:23:27 MST
ALL TONNAGES ARE *1000
20 FOOT BLOCK-MINERALIZATION MODEL

UPPER TOPO ID / 2/ CAMP DOUGLAS DIGITIZED TOPOGRAPHY 20 FOOT BENCHES
UPPER TOPO ID /1001/ Mineral inventory for Gold values gt 0.010
LOWER TOPO ID /3005/ New N70W elliptical 20' block model @ $450 55 deg. /

Economic Pit Design

- 55 Degree Walls
- $450.00 Gold Price
- $4.40 Plant Cost Per Ton
- $1.00 Mine Cost Per Ton of Material

COORDINATE LIMITS OF SUMMARY

	MAX	MIN
NORTH	10500	8500
EAST	13000	9500

CUTOFF GRADES:		0.010 TO 0.015 OZ AU			0.015 TO 0.020 OZ AU			GT 0.020 OZ AU			GT 0.010 OZ AU			
BENCH	WASTE	M TONS	OZ AU	OZ AG	M TONS	OZ AU	OZ AG	M TONS	OZ AU	OZ AG	M TONS	OZ AU	OZ AG	STRIP
7300	1	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7280	8	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7260	25	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7240	42	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7220	55	1	0.013	0.106	1	0.016	0.134	0	0.027	0.228	3	0.017	0.141	17.31
7200	53	0	0.012	0.099	0	0.015	0.126	5	0.032	0.268	6	0.028	0.237	8.32
7180	56	0	0.000	0.000	0	0.019	0.218	8	0.037	0.321	9	0.036	0.314	5.88
7160	69	0	0.000	0.000	0	0.018	0.213	4	0.036	0.330	5	0.034	0.316	13.56
7140	89	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7120	112	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7100	143	0	0.011	0.016	1	0.018	0.023	1	0.022	0.021	3	0.018	0.021	37.29
7080	180	0	0.013	0.016	1	0.018	0.015	2	0.024	0.008	3	0.021	0.011	50.02
7060	206	3	0.012	0.052	1	0.017	0.058	7	0.042	0.172	12	0.031	0.127	17.04
7040	209	7	0.013	0.036	7	0.018	0.046	23	0.048	0.224	38	0.035	0.154	5.45
7020	201	10	0.013	0.045	7	0.017	0.058	53	0.049	0.215	71	0.041	0.175	2.84
7000	190	5	0.013	0.043	8	0.018	0.054	70	0.056	0.227	84	0.049	0.197	2.25
6980	174	1	0.012	0.077	7	0.017	0.064	74	0.050	0.204	83	0.046	0.190	2.09
6960	146	2	0.012	0.042	8	0.017	0.072	62	0.043	0.162	73	0.039	0.147	2.00
6940	97	9	0.013	0.051	13	0.018	0.086	46	0.035	0.154	69	0.029	0.127	1.40
6920	73	8	0.012	0.045	8	0.017	0.112	32	0.033	0.149	48	0.027	0.124	1.51
6900	42	6	0.013	0.043	7	0.017	0.062	36	0.040	0.182	50	0.033	0.147	0.84
6880	31	5	0.013	0.012	4	0.018	0.073	27	0.062	0.279	37	0.049	0.213	0.83
6860	25	0	0.000	0.000	0	0.015	0.000	24	0.058	0.189	25	0.057	0.185	1.00
6840	10	0	0.011	0.160	0	0.017	0.117	23	0.088	0.146	24	0.084	0.146	0.40
6820	5	0	0.015	0.185	0	0.018	0.110	13	0.145	0.013	14	0.135	0.023	0.37
6800	1	0	0.000	0.000	1	0.016	0.118	6	0.100	0.000	7	0.089	0.016	0.18
6780	0	0	0.000	0.000	0	0.020	0.000	1	0.048	0.000	2	0.041	0.000	0.00
TOTAL	2255	64	0.013	0.046	84	0.017	0.073	527	0.052	0.189	675	0.044	0.161	3.34

_DUA0:[PROJECT.CAMP_DOUGLAS]RESERVE_OUTPUT.DAT;23 30-NOV-1988 13:26

CAMP DOUGLAS PROJECT
30-NOV-88 10:39:09 MST
ALL TONNAGES ARE *1000
20 FOOT BLOCK-MINERALIZATION MODEL

Mineral Inventory Model

- N70° W Ellipitical Interpolation
- 55 Degree Walls
- 20x20x20 Blocks

UPPER TOPO ID / 2/ CAMP DOUGLAS DIGITIZED TOPOGRAPHY 20 FOOT BENCHES
UPPER TOPO ID /1001/ Mineral inventory for Gold values gt 0.010
LOWER TOPO ID /3004/ New N70W elliptical 20' block model inventory 55 deg. /

COORDINATE LIMITS OF SUMMARY

	MAX	MIN
NORTH	10500	8500
EAST	13000	9500

CUTOFF GRADES: 0.010 TO 0.015 OZ AU; 0.015 TO 0.020 OZ AU; GT 0.020 OZ AU; GT 0.010 OZ AU

BENCH	WASTE	0.010 TO 0.015 OZ AU M TONS	OZ AU	OZ AG	0.015 TO 0.020 OZ AU M TONS	OZ AU	OZ AG	GT 0.020 OZ AU M TONS	OZ AU	OZ AG	GT 0.010 OZ AU M TONS	OZ AU	OZ AG	STRIP
7400	1	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7380	11	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7360	28	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7340	50	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7320	72	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7300	106	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7280	151	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7260	213	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7240	271	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0.00
7220	324	1	0.013	0.106	1	0.016	0.134	0	0.027	0.228	3	0.017	0.141	101.35
7200	349	0	0.012	0.099	0	0.015	0.126	5	0.032	0.268	6	0.028	0.237	54.59
7180	378	0	0.000	0.000	1	0.018	0.181	8	0.037	0.321	10	0.035	0.304	36.94
7160	409	0	0.013	0.048	4	0.017	0.167	8	0.036	0.320	13	0.029	0.256	30.47
7140	443	3	0.013	0.119	5	0.017	0.097	3	0.026	0.012	12	0.018	0.078	34.67
7120	488	1	0.013	0.078	0	0.018	0.003	8	0.029	0.011	11	0.025	0.022	42.42
7100	555	1	0.013	0.017	2	0.018	0.021	6	0.025	0.019	10	0.021	0.019	54.22
7080	622	2	0.014	0.016	4	0.018	0.016	4	0.024	0.013	11	0.020	0.015	54.04
7060	691	3	0.012	0.045	2	0.017	0.044	12	0.036	0.107	18	0.029	0.087	37.04
7040	746	13	0.013	0.026	8	0.018	0.041	28	0.045	0.190	49	0.032	0.121	14.96
7020	822	15	0.012	0.043	9	0.018	0.059	60	0.046	0.193	86	0.037	0.150	9.55
7000	947	14	0.013	0.040	11	0.017	0.061	79	0.053	0.203	105	0.044	0.166	8.99
6980	1032	15	0.013	0.051	21	0.018	0.058	96	0.046	0.175	132	0.037	0.142	7.77
6960	1091	26	0.012	0.047	23	0.017	0.072	91	0.039	0.131	141	0.030	0.106	7.72
6940	1084	52	0.012	0.054	32	0.018	0.076	89	0.038	0.127	174	0.027	0.096	6.21
6920	1041	69	0.012	0.059	32	0.017	0.060	85	0.048	0.137	187	0.030	0.095	5.57
6900	968	62	0.012	0.049	37	0.017	0.064	84	0.046	0.170	184	0.029	0.108	5.26
6880	859	65	0.013	0.048	37	0.017	0.064	82	0.042	0.162	184	0.027	0.102	4.65
6860	736	49	0.012	0.047	26	0.017	0.068	90	0.038	0.121	167	0.027	0.090	4.39
6840	594	54	0.012	0.043	19	0.017	0.063	90	0.049	0.120	164	0.033	0.088	3.62
6820	493	36	0.012	0.038	15	0.017	0.068	67	0.057	0.078	119	0.038	0.065	4.13
6800	395	28	0.012	0.038	16	0.017	0.042	48	0.044	0.064	94	0.030	0.052	4.20
6780	312	26	0.012	0.031	9	0.017	0.036	24	0.034	0.077	60	0.022	0.051	5.14
6760	230	21	0.013	0.041	7	0.017	0.037	10	0.030	0.083	40	0.018	0.051	5.72
6740	159	20	0.012	0.042	7	0.017	0.051	5	0.026	0.084	33	0.016	0.051	4.80
6720	90	18	0.012	0.059	10	0.017	0.041	4	0.026	0.078	33	0.015	0.056	2.70
6700	46	12	0.012	0.049	7	0.017	0.057	9	0.027	0.051	29	0.018	0.052	1.57

_DUA0:[PROJECT.CAMP_DOUGLAS]RESERVE_OUTPUT.DAT;23 30-NOV-1988 13:26

6680	15	8	0.012	0.038	5	0.017	0.060	12	0.027	0.035	25	0.020	0.041	0.61
6660	1	8	0.013	0.049	1	0.018	0.058	5	0.026	0.000	16	0.018	0.034	0.10
6640	0	2	0.013	0.013	0	0.000	0.000	0	0.000	0.000	2	0.013	0.013	0.00
TOTAL	16842	638	0.012	0.047	364	0.017	0.062	1128	0.043	0.139	2131	0.030	0.098	7.90

Enclosure III

ASARCO

Mineral Beneficiation Department

October 27, 1988

D.F.S.

NOV 1 1988

Mr. D. F. Skidmore
Assistant to General Manager
Southwestern Mining Department
TUCSON OFFICE

Camp Douglas
Preliminary Design Criteria
and Cost Estimates

Listed below are the best estimates available at this time of Camp Douglas design criteria and costs. These numbers were gathered from a wide variety of sources and probably have an accuracy no better than ±35%. If we proceed further with this project, we should definitely have an experienced engineering firm do a pre-feasibility study to obtain more accurate cost figures. One possibility would be Kilborn, who recently did the Santa Fe project. They have made an unofficial bid of $15-20,000 for a pre-feasibility study.

There are several areas of uncertainty which could have significant impact on both capital and operating costs. In addition to the major concerns regarding pit slope and stripping ratio, other questionable areas are (a) Nevada environmental requirements which are currently undergoing revision, (b) the height to which this ore can be stacked for leaching which can only be determined by plant operation, and (c) the cycle time required for leaching which translates directly into plant capacity.

DESIGN CRITERIA

1. The ore appears to be very fractured and will produce a large proportion of fines when mined. This essentially precludes any thought of leaching large heaps of run of mine or primary crushed ore.

2. The most likely scenario would be to crush in two stages to ±2 in and agglomerate to control the fines. Cement probably will be required and agglomeration may be possible by simple conveyor belt transfer points.

3. A major question is the height to which the ore can be stacked. This is very difficult to answer with laboratory work which can reasonably test to only ±20 ft. A reasonable estimate at this time would be heaps composed of four 20 ft lifts or 80 ft high. This would require a pad area of approximately 650,000 square feet or 15 acres.

4. It may be possible to place the heaps in the canyon below the pit but height considerations plus the difficulty of coordinating leaching time with heap construction with mining plan could make this very difficult. We should definitely plan on obtaining sufficient land on the flatter ground to the northeast for constructing the leaching pads. If initial operating data is favorable to higher heaps, we might be able to use the higher canyons during later stages of the operation.

5. The size and grade of Camp Douglas indicate that a modular, transportable gold recovery plant be used. Such units are available from Kappes Cassiday in Sparks, Nevada, or Gull Mining in Colorado. A reasonable sized modular plant would treat 500 gpm (2 modules) pregnant solution.

   Typical solution application rates are 0.004 gpm per square foot of pad area. A 500 gpm plant would then treat 500/0.004 or 125,000 square feet of heap at a time. At a 20 ft lift height, this translates into ±100,000 tons under leach at any one time.

6. Initial leach tests indicate fairly rapid leaching so a 60-day or shorter leach cycle may be possible. With 100,000 tons under leach and a 60-day cycle, the proposed plant would treat 600,000 tons per year.

7. Water consumption at Nevada heap leach operations is given as approximately 15% of leach solution flow. At 500 gpm, this gives a water requirement of only 75 gpm. We should probably figure on at least 100 gpm to allow for periods of abnormal usage.

+ initial water for total circuit make up

8. Power requirements are difficult to estimate until the plant layout is established. Circulating the 500 gpm leach solution will be the main power consumer. If a total head of 400 ft is predicted, then solution circulation will consume approximately 100 horsepower. Process solution pumping (through carbon absorption/stripping) could take an equal amount so, say, 200 horsepower for pumping. For present purposes, we will assume total horsepower requirements of 250 hp.

9. The preliminary results from the column leach of minus 3/4 inch ore indicate the following:

   A. Gold recovery of 70% in 30 days and very little increase in recovery after that.

   B. Agglomeration is required for good solution flow.

   C. Indicated cyanide consumption was high at ±2.0 lb NaCN per ton of ore. Actual cyanide consumption should be less than in laboratory columns but, at $0.75/pound, cyanide will be a significant cost and further testwork will look at this more closely. Preliminary bottle tests indicated less than 1/2 lb per ton NaCN consumption. For present purposes, we will assume 3/4 lb NaCN per ton.

CAPITAL COSTS

Item and Description		Cost
*A.	Carbon column recovery plant This would be modular (possibly contained in trailers) and would not include carbon regeneration. (Carbon would be sent to smelter when exhausted in 6 to 12 months).	$ 500,000
B.	Leach Pads - use $1.28/ft^2 Assume 80 ft stack height and 3 pads total required (1 leaching and 1 loading/resting). Third pad not required until Year 2.	490,000
C.	Power Plant Assume 2 @ 250 kw (used)	60,000
D.	Water Supply (guesstimate) Assume wells on site.	25,000
E.	Site Preparation Estimate $25,000 for road improvement and $25,000 for plant site.	50,000
F.	Reclamation - use $3,000/acre and assume 80 ft heap height which gives 15 acres.	45,000
	Sub Total	$1,170,000
	Contingency @ 15%	180,000
	TOTAL	$1,350,000

* It may be possible to lease a recovery plant along with contracting the recovery plant operation. Initial cost estimate is $10,000/month for the plant. This is in addition to a cost of $40-50,000/month for plant operation which translates into $0.80-$1.00/ton and could be competitive with operating the plant ourselves.

OPERATING COSTS

Contract crush, agglomerate, and leach		$1.75
*Recovery Plant		
Supervision	$0.22	
Labor	0.57	
TOTAL		0.79
Supplies		
Cement - 10 lb/ton @ $0.06/lb	$0.60	
Lime (not required?)	--	
NaCN - .75 lb/ton @ $0.75/lb	0.56	
Carbon (replace 5 times @ 13,500 lb and $1.22/lb)	0.01	
Miscellaneous @ 10% (includes pipe, propane, strip reagents)	0.20	
TOTAL		1.40
Power		
Assume 2.5 kwh/ton @ $0.10/kwh		0.25
Contingency		
@ 5% of noncontract items		0.12
	TOTAL	$4.31

* See note under "Capital Costs"

D. E. Crowell

DEC:brw

cc: A. R. Raihl

Lou Janssen

ASARCO

Southwestern Mining Department

March 27, 1989

Mr. P. G. Vikre, Manager
Great Basin Division
Exploration Department
Reno Office

Re: Camp Douglas Project
Final Report

BASIC DATA

Work was initiated on the Camp Douglas Project in August of 1988 with the receipt of 81 drill hole logs (CDA-1 to CDA-81) containing approximately 2500 gold and silver assays.

Initial topography for the project was digitized from the best existing map in the Tucson Office. A 20-foot contour interval was used since this would be the optimum mining height.

No geologic information was available to define rock types, major structures, veins and or faults or other geologic controls.

INITIAL MODEL

Once the drill hole data were entered into the Asarco Mine Planning System (AMPS) data base and composited into 20-foot bench composites, several plan maps were made at different levels in the deposit. These maps were used to determine a block size and an interpolation distance limit needed in constructing the first computer model of the deposit. A visual examination of these different level maps indicated that the average distance between drill holes was around 200 feet. A 'rule of thumb' for calculating block size is that it should be 2 to 2-1/2 times the bench height or 1/3 to 1/4 of the distance between drill holes. A block size of 50 feet was selected as meeting these criteria. Since there was no geologic information to limit the interpolation I selected an interpolation distance limit equal to the average drill hole distance of 200 feet. This would be sufficient to fill in all the 'empty' blocks between drill holes.

The modeling program used this interpolation distance limit to extend each 20 foot composite into a circle with a radius of 200 feet. If another composite was encountered within

this 200 foot circle, the program calculated the distance between the center composite and this one and then used one half of the distance. This method of extending the composite value one half the distance to the adjacent composites is called polygonal interpolation and is the same used at the MISSION and RAY mines. If no other composites were found within the 200 foot interpolation distance limit the distance was cut to 100 feet. This is a common method of reducing the influence of isolated samples or samples along the fringe area of a deposit.

One the computer models were built for both gold and silver an economic evaluation program calculated the value of each block in the deposit using cost and price information supplied by Messrs. F. T. Graybeal, S. A. Anzalone and D. F. Skidmore.

The cone mine program was then used on this model to calculate the economic reserves that could be expected using the cost and price data and the polygonal block model containing 50 x 50 x 20 foot blocks. Pit slope angles of 45 degrees and 60 degrees were used to determine the affect of steepening the pit walls.

REVIEW OF INITIAL MODEL

The results of this first run were discussed at length in a meeting that included Messrs. Kupsch, Brown, Anzalone, Graybeal, Kurtz, Scartaccini, Skidmore, and Vikre (see Table 1). Mr. F. T. Graybeal objected to our 'cutting' high grade assays. He suggested that we use a different and higher cutoff point and that the entire model be re-calculated. Also, several hundred underground assays, (that we did not have when the first model was constructed) were to be included in the second model.

SECOND MODEL

As a result of this meeting it was decided to construct a second model using the underground assay data. Our next step was to digitize the underground assay data and include these data into the AMPS data base. We decided at this time to abandon our 'shotgun' approach to modeling this deposit. Prior to this the emphasis had been to get a computer model and reserves built 'ASAP'. Now, however, the interest certainly warranted a closer and more time consuming modeling procedure. To aid us in this we constructed a completed set of variograms at 45 degree increments throughout the deposit. This may be visualized as a set of 'square' cones radiating from the center of a sphere. The first 'square' cone points straight up with an azimuth of zero degrees and a vertical angle of zero degrees. The sides of this cone are at +/- 22.5 degrees from the center of the azimuth and the vertical angle. The next cone points north at an azimuth of zero degrees +/- 22.5 degrees and a

vertical angle of 45 degrees, +/- 22.5 degrees. This pattern is duplicated until all areas of the sphere are described.

Every ore deposit has some anisotropy associated with it. By plotting each group of variograms on a graph that lie in a vertical section, a visual picture of the anisotropy may be constructed. Each set of variograms was examined and the range of influence from each one was plotted on a piece of graph paper. The first piece of graph paper contained all the ranges from the variograms in the N-S vertical plane. The next piece of graph paper contained all the ranges from the variograms in the N45E vertical plane and so on. An ellipse was drawn on each vertical section that connected the ranges of each adjacent variogram. This ellipse described the anisotropy of the deposit in that particular vertical plane. To better visualize these different anisotropies I transferred the point of intersection of this vertical ellipse and each 20 foot vertical increment to another piece of graph paper. This final graph gave a set of horizonal sections through the three dimensional anisotropic ellipsoid present in the deposit.

Although complex to describe, the longest axis of this three dimensional ellipsoid plunged steeply into the N45E direction and had a dimension of 200 feet. The secondary axis was perpendicular to this and measured 160 feet in the N45E direction. The shortest axis measured 60 feet in the N45W direction. To the modeling program this means that it may extend a the value of a composite within this ellipsoid, just as it did in the first model. In the first model it extended its value within a horizontal circle with a radius of 200 feet. In the second model the program must extend each composite value within the three dimensional ellipsoid. This new model was constructed using 20 x 20 x 20 foot blocks. This block size fits precisely into the dimensions of the three dimensional ellipsoid. To handle the problem of cutting high grade assays, we used inverse distance squared interpolation on ALL of the UNCUT assays. No attempt was made to cut the high grade assays, but instead the interpolation method was used to mute their affect.

Once the new model was built using the 20 x 20 x 20 foot blocks and the new three dimensional ellipsoid, the same economic and cone mine program was run as in the first polygonal model. The results were dramatically lower than those obtained from the first polygonal model. This was not unexpected since the actual volume of the area of influence of the three dimensional ellipsoid was roughly one quarter that of the original circular area of influence. However, we felt that this model was a much better representation of the actual gold distribution than the first model.

REVIEW OF SECOND MODEL

These results were discussed with Messrs. F. T. Graybeal, S. A. Anzlaone and D. F. Skidmore (see Table 1). Mr. Graybeal's main concern was that he did not remember the N45E direction as being mineralized. After lengthy discussions we agreed to use the same three dimensional ellipsoid, but to turn it so that is was parallel with the N70W shear zone that passes through the deposit. Again, since we had virtually no geologic information this seemed to be as good a direction as any. Especially since the old workings were aligned with this structure. Further support came from F. W. Koutz's observations of two mineralized directions of N25E and N65E. Since we had used a variogram increment of 45 degrees, the 'cone' that pointed in the N45E direction could have included both the N25E direction and the N45E direction. The N45E direction of the three dimensional ellipsoid could have been an 'apparent' direction caused by the averaging of these other two directions.

THIRD MODEL

A third model was constructed using the same three dimensional ellipsoid that was used in the second model, but turning the ellipsoid so that it was parallel with the N70W shear zone that passes through the deposit. As this third model was being generated, D. F. Skidmore and F. W. Koutz were drilling a number of closely spaced verification holes in selected areas of the deposit. Although these assay results were not entered into the third model they were plotted and overlaid on the computer generated block model. Almost to the one each of the assays from the new closely spaced drilling was within the variance predicted by the computer model.

At any rate, the reserves calculated from this third model were only slightly better than the second model (see Table 1). Presumably, the orientation of the ellipse parallel to the shear zone encountered more contiguous ore than in the second model.

CONCLUSIONS

In a memo to Mr. R. J. Kupsch, dated December 2, 1988, Mr. D. F. Skidmore outlined the final economic results of this study. In it he used the reserves from the third model and a gold price of $450.00 to calculate the NPV and ROI of the project. He concluded that the one year life and 9.7% ROI did not stand the test of a solid investment opportunity for the Company (see attached memo).

ATTACHMENTS

We are sending you a complete set of North-South cross sections at 50 scale, a set of East-West cross sections at 50 scale, a plan map at 100 scale, and a plan map at 20 scale. Please let us know if you have any questions.

Louis J. Jansen
Supervisor
Engineering and Computer
Services

LJJ/mck
encls.

cc: RJKupsch - w/o encl.
TEScartaccini - " " "
RLBrown/FTGraybeal - " " "

TABLE 1

COMPARISON OF THREE MODELS

FIRST MODEL	SECOND MODEL	THIRD MODEL
Circular area of influence, oriented parallel to bench.	Ellipsoid oriented N45E	Ellipsoid oriented N70W or parallel to main shear zone through deposit.
Ore Reserve	Ore Reserve	Ore Reserve
2,502,000 tons 0.045 OPT GOLD 3.42 Stripping Ratio	459,000 tons 0.052 OPT GOLD 4.24 Stripping Ratio	675,000 tons 0.044 OPT GOLD 3.34 Stripping Ratio
Basis	Basis	Basis
$450.00 Gold 60 Degree Pit plus 0.010 OPT Gold	$450.00 Gold 55 Degree Pit plus 0.010 OPT Gold	$450.00 Gold 55 Degree Pit plus 0.010 OPT Gold

CAMP DOUGLAS PROJECT

Index of Listings and Figures

Listing of Assays with Ag/Au ratios:

Underground Assays: Blue, Ackerman, and Red House Areas;
Original Drill Hole Assays, CDA-01 through CDA-~~81~~ 115

North-South Cross-Sections at 50 scale, 8600N to 10400N:

9700 East	10700 East	11700 East
9800 East	10800 East	11800 East
9900 East	10900 East	11900 East
10000 East	11000 East	12000 East
10100 East	11100 East	12100 East
10200 East	11200 East	12200 East
10300 East	11300 East	12300 East
10400 East	11400 East	12400 East
10500 East	11500 East	12500 East
10600 East	11600 East	

East-West Cross-Sections at 50 scale:

9400 North	from 9600E to 11600E	and 10600E to 12600E
9500 North	from 9600E to 11600E	and 10600E to 12600E
9600 North	from 9600E to 11600E	and 10600E to 12600E
9700 North	from 9600E to 11600E	and 10600E to 12600E

Plan Map at 100 scale:

Drill Hole Location Map with Down-Hole Projection and Topographic Contours

Plan Map at 20 scale:

Underground Sample Locations with Gold Assay Values.

JDSell

This is what I told you about. No need to return I have copy

RECEIVED

MAY 15 1989

EXPLORATION DEPARTMENT

RECEIVED
MAY 15 1989
EXPLORATION DEPARTMENT

No-1
No-2

No

No

JDS

UNIVERSAL DRILLING INC.

Waterwell & Exploration Drilling

The Professionals.

P.O.Box 593 Yarnell, Arizona 85362

602-427-3367

P.O. Box 1027, Wickenburg, AZ. 85358

May 15, 1989

Mark Miller
ASARCO Incorporated
P.O. Box 5747
Tucson, Arizona
85703-0747

MAY 23 1989
SW Exploration

Dear Mark:

As you requested,

Quotation for drilling and sampling on your planned drilling program near the old Yarnell Gold Mine. Expected total footage approximately 2000 feet with hole depths,not exceeding 300 feet plus or minus. We will be using a Gardner Denver 1500 Air Rotary equiped with a, 5 inch hammerdrill. Cuttings will flow thru a deflector and cyclone, split and bagged as required. Cost per foot $7.00 more waived. If we supply 3RD man for sampling a change of $ 10.00 per hour will be added. All other costs will be included in the footage rate. Dozer rate will be $ 75.00 per hour as before. Look forward to a sucessful drilling program.

Respectfully Submitted,

Steve Roberts

Steve Roberts, Pres.

KR/sr

ASARCO

Exploration Department
Southwestern United States Division

May 15, 1989

Mr. Christopher Moat, President
Norgold Resources Inc.
2380 Harbour Centre
P.O. Box 12122
555 West Hastings Street
Vancouver, B.C., V6B 4N6
Canada

Yarnell Project
Photos

Dear Chris:

Enclosed are 3 sets of photos I took at Yarnell during Phase 1 drilling. I am sure you will find them interesting. The negatives are here in Tucson if you might require additional pictures.

Regards,

Mark A. Miller

MAM:mek
Enc.

cc: J.D. Sell
W.L. Kurtz

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

ASARCO

Southwestern Exploration Division

JDS

May 16, 1989

J.D. Sell

Drilling Services Drill Rig
Availability, Yarnell Project

In talking to Mark Madison (Drilling Services Company) on May 12, 1989, he told me that the rig we are waiting for will not be available until the end of the month. This effectively puts our starting date for drilling as June 1, 1989.

Our $15,000 payment to Norgold is due on July 1, 1989 and our 10,000' program will not be completed by then.

As the continuity within the indicated ore zone looks good, it would be advisable to drill the extension holes first if there are any thoughts about not making the July payment. Some of these holes could be drilled conventionally and we could start next week at $7/ft. with Universal Drilling from Yarnell. I am currently awaiting a written bid from them.

MAM:mek

Mark A. Miller

cc: W.L. Kurtz

To VDS

Date 5/17 Time 8:20

WHILE YOU WERE OUT

M F. Graybeal

of

Phone

Area Code Number Extension

TELEPHONED		PLEASE CALL	✓
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message

Operator

AMPAD EFFICIENCY

23-000 50 SHT. PAD
23-001 250 SHT. DISPENSER BOX

1. Send all Calne Spain data together w/ request so Gordian + Graf + Neg. all in one packet

2. Call Peter on Echelbed. [illegible] don't use Robbey if can get other.

3. Yourself:
R.B. wants auth [illegible] RO I
full tax data 51-49 JV.

2000TPD a) 4 mill

4000TPD b) 8 mill

c. single hole to show off all drill hole assays.

d. .01 class interest

e. Bottle test 2 yr.

other test in progress.

ASARCO

Southwestern Exploration Division

JDS

May 17, 1989

J.D. Sell

DSC Rig
Yarnell Project

According to Jim Witt, DSC's manager, they will have a rig for us by the end of the month. I told him we will take it. I will call him on 5/22/89 to firm up starting date.

Mark A. Miller

MAM:mek

cc: W.L. Kurtz

ASARCO Southwestern Exploration Division

JDS

May 18, 1989

J.D. Sell

Preliminary Alteration Study
Yarnell Project

The attached individual drill hole sections and X, Y, & Z cross sections show the extent of the altered zone based upon the presence or absence of biotite. The alteration zones are typical of a hydrothermal system ranging from argillic --> propylitic --> unaltered rock.

The cross sections show the ore grade (+.03 opt) zone is defined by the absence of biotite with gradually increasing amounts into the lower grade zone (.01-+.-025). This observation suggests that by drilling through the weakly altered areas (biotite present) one should see an increase in gold content closer to the Yarnell Fault; the area of most intense alteration. (The mineralized zone shown on the cross sections is outlined in red and includes both high grade and low grade ore.)

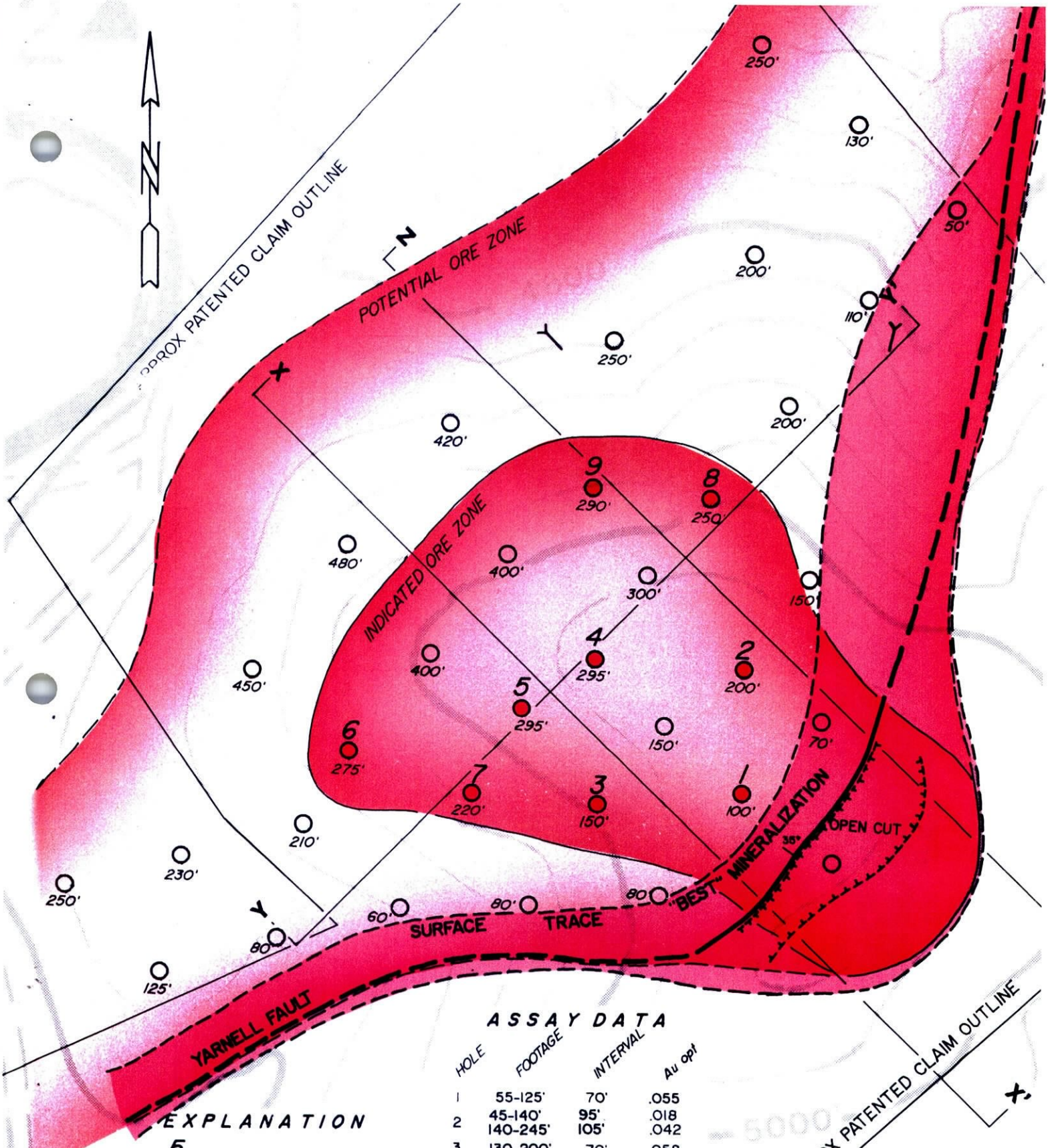
As stated previously,, the alteration zone at Yarnell seems to be typical of most hydrothermal systems. Argillic alteration as clay minerals (possible illite or kaolinite) seems to occur in very close proximity to the Yarnell Fault and mostly in the fault hanging wall. Outwards from this zone is a fairly broad sericite/quartz, sericite zone which is composed of varying amounts of pale greenish sericite --> sericitic feldspars. Also within this zone is variable silicification occurring as institial quartz and as discrete quartz veins, both cross-cutting and conformable to the main fault structure. Finally outwards and seemingly interfingering with the quartz sericite zone is the propylitic zone defined by decomposed granite (probably from the altering fluids) and variable amounts of biotite. This zone appears to differ from unaltered rock by the weathering characteristics. The weakly altered rock decomposes whereas the unaltered rocks exhibit typical granitic weathering.

One can see from the sections that increase in gold content can be expected below the weakly altered zones. This idea will be tested in several of the proposed drill holes. I also plan to make thin sections of these zones to better understand the alteration relationships.

Mark A. Miller

MAM:mek
Atts.

cc: W.L. Kurtz



EXPLANATION

5 — 295' Completed drill hole depth to Yarnell Fault

210' Proposed drill hole est. depth to Yarnell Fault

ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225'	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

T. 10 N., R. 5 W., SEC. 14

ASARCO Incorporated

YARNELL PROJECT

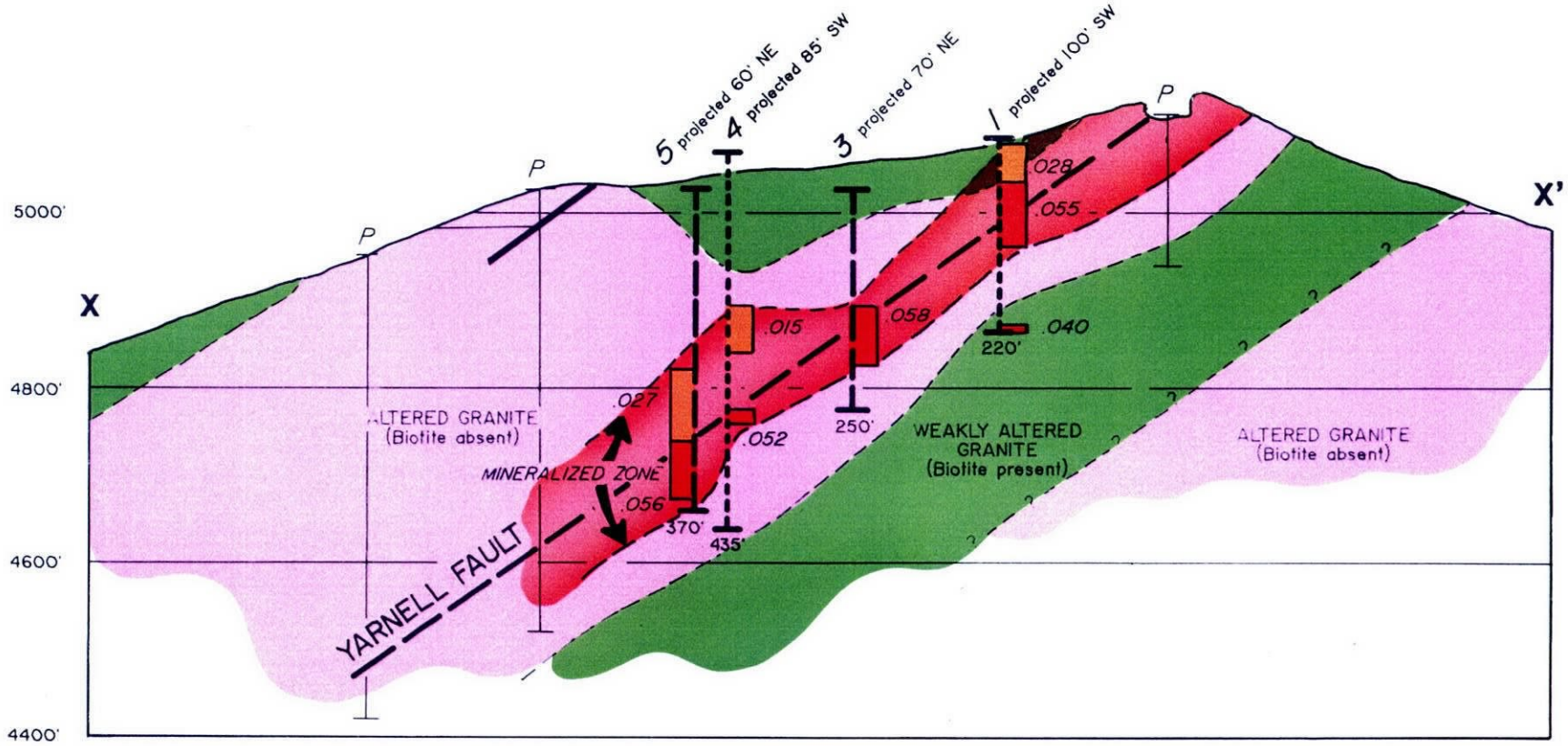
DRILLING PROGRESS

YAVAPAI CO. ARIZONA

0 — 200'

contour interval 40'

mn6689 WLK/dam tuc 04-17-89



LOOKING NORTHEAST

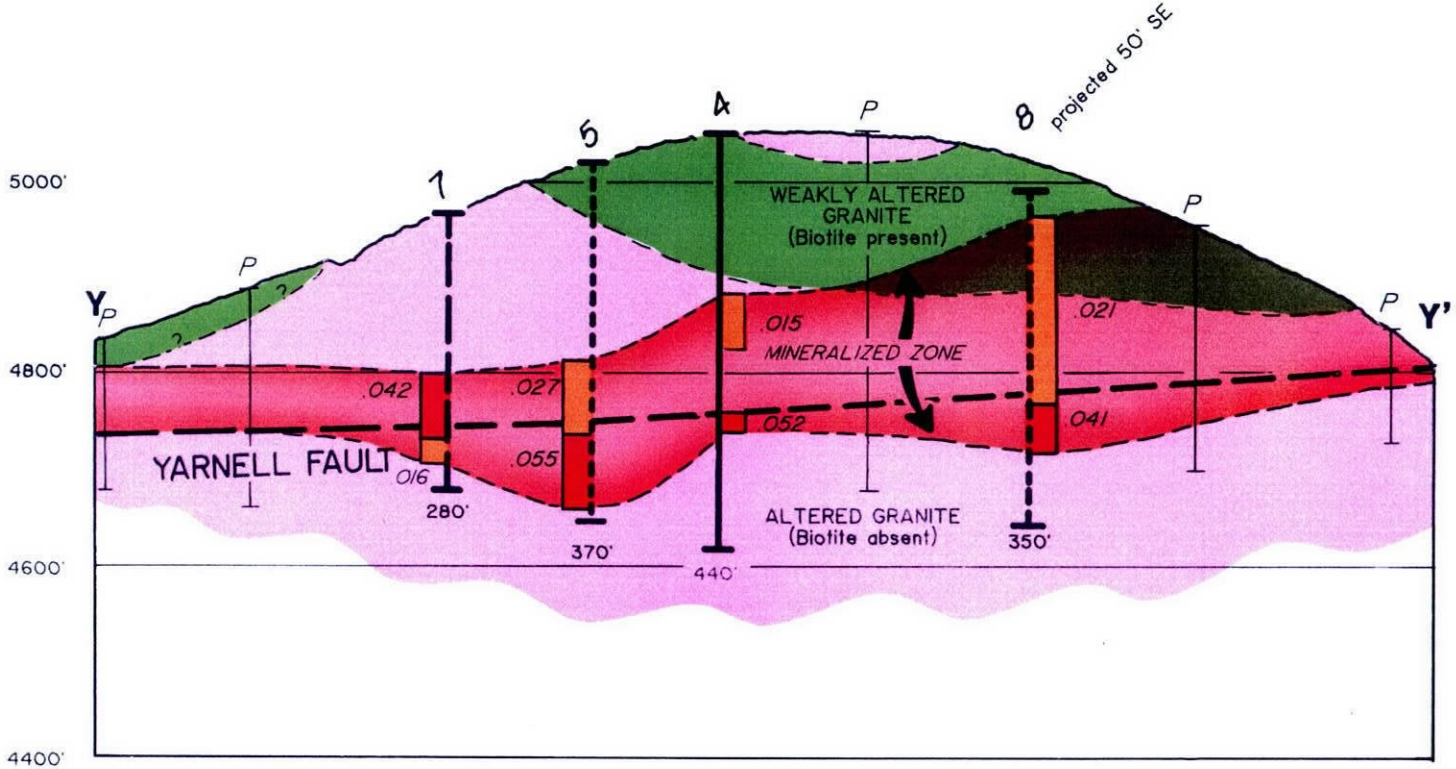
ASARCO Incorporated
YARNELL PROJECT

SECTION X - X'

YAVAPAI CO. ARIZONA

0 200'

mn6714 MAM/dam tuc 05-16-89

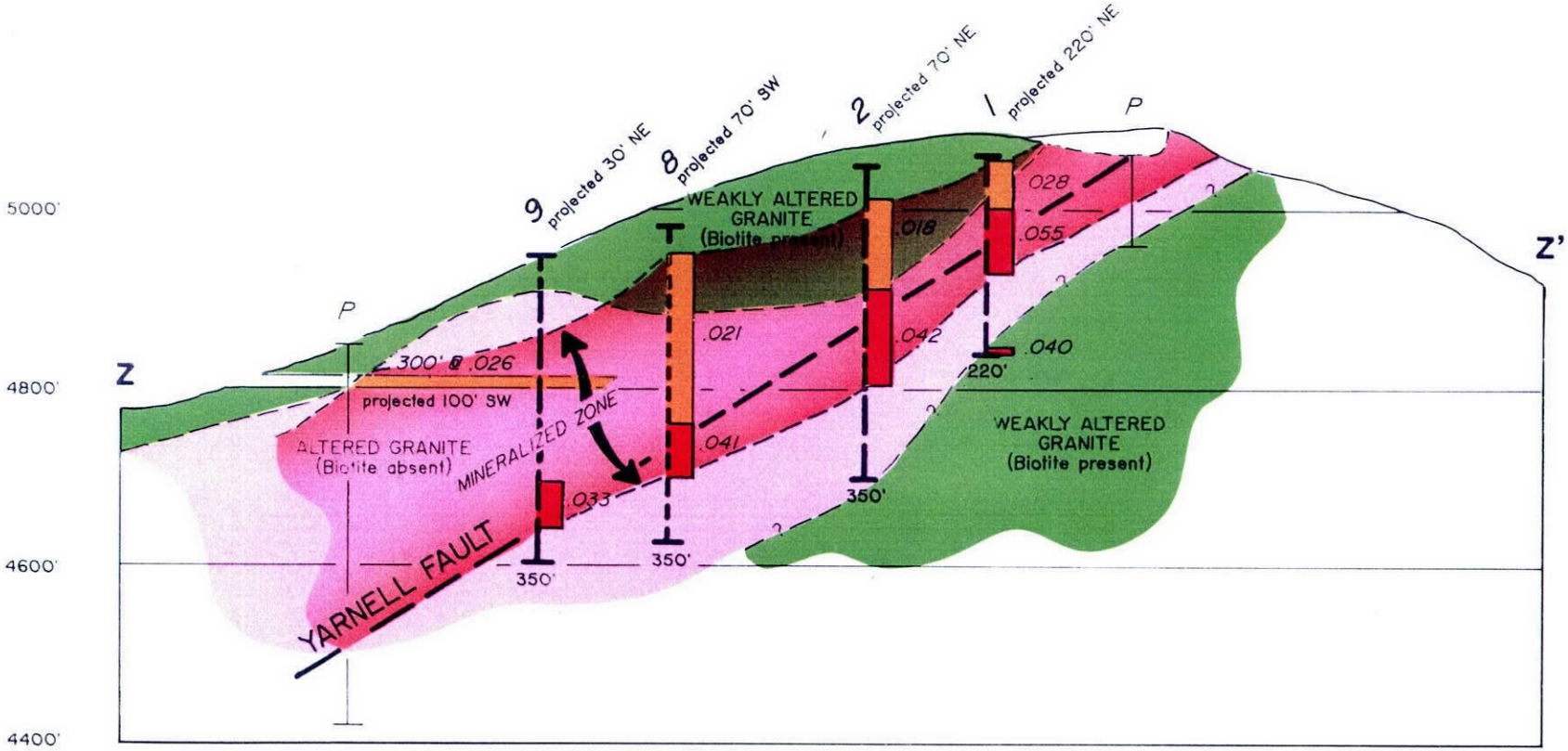


LOOKING NORTHWEST

ASARCO Incorporated
YARNELL PROJECT
SECTION Y - Y'
YAVAPAI CO. ARIZONA

0 200'

mn6713 MAM/dam tuc 05-16-89



LOOKING NORTHEAST

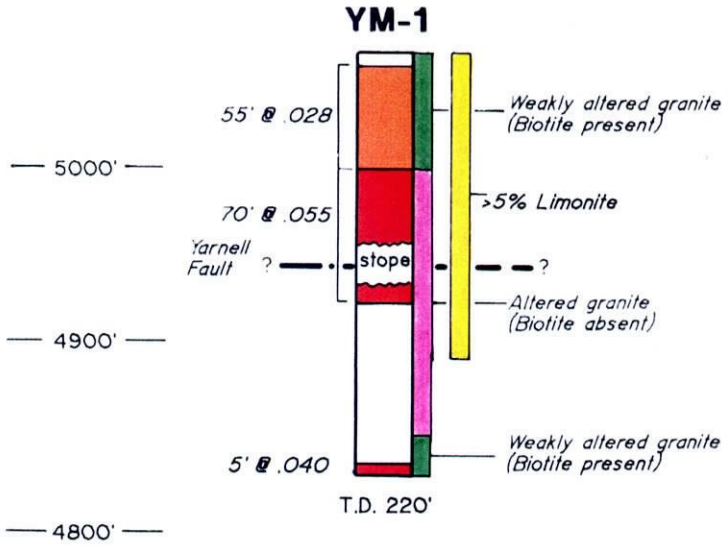
ASARCO Incorporated
YARNELL PROJECT

SECTION Z - Z'

YAVAPAI CO., ARIZONA

0 200'

mn6712 MAM/dam tuc 05-16-89



ASARCO Incorporated
YARNELL PROJECT

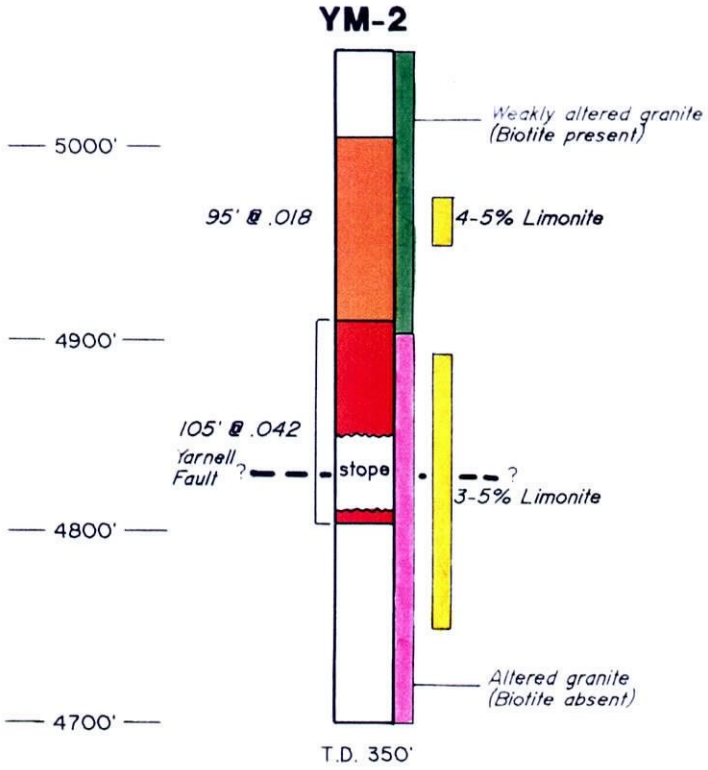
DRILL SECTION YM-1

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6715 MAM/dam tuc 05-16-89



ASARCO Incorporated
YARNELL PROJECT

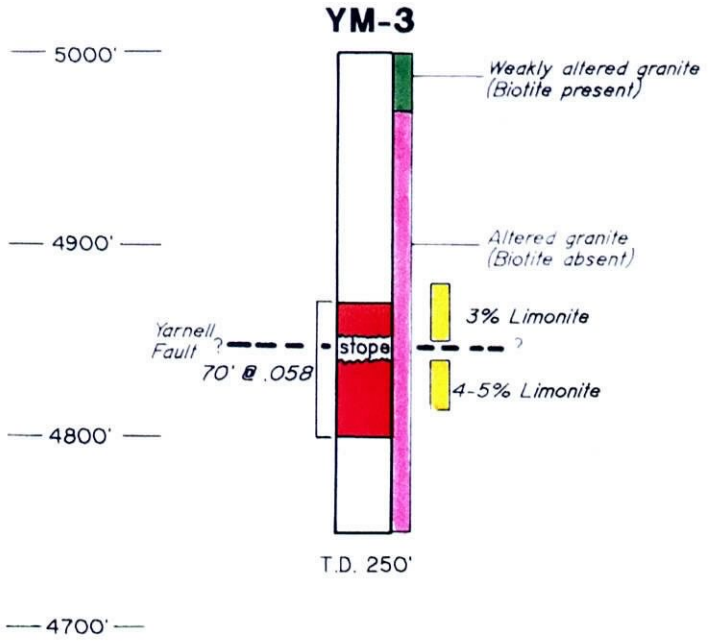
DRILL SECTION YM-2

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6716 MAM/dam tuc 05-16-89



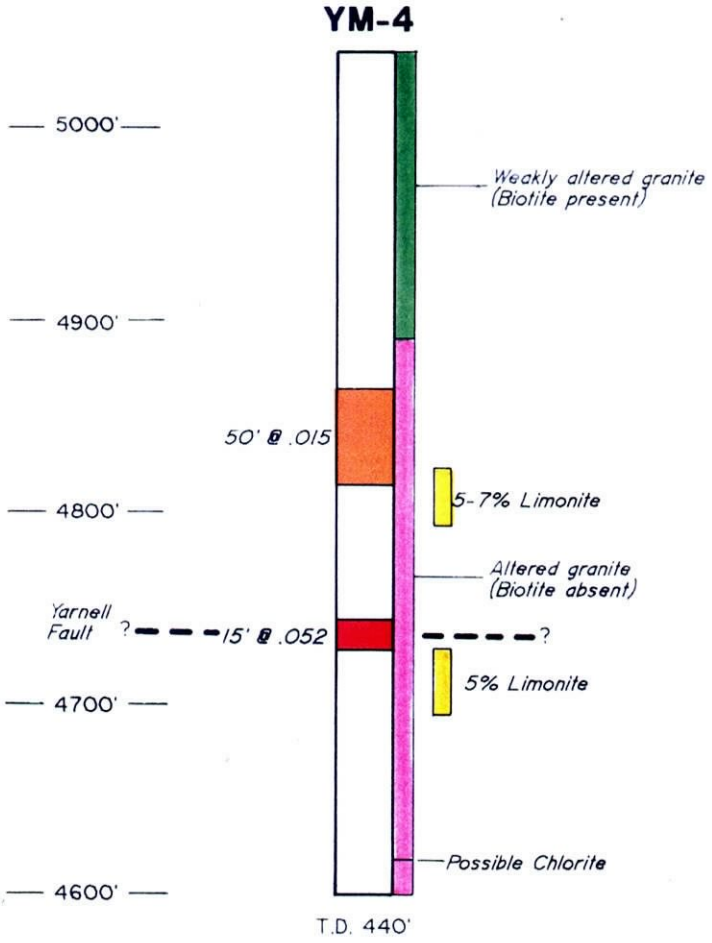
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-3

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6717 MAM/dam tuc 05-16-89



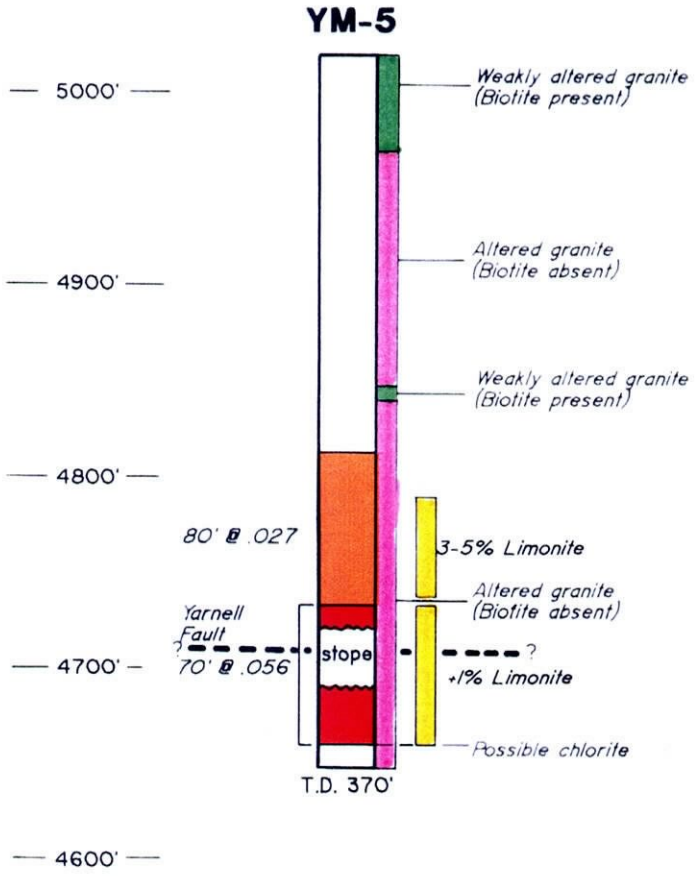
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-4

YAVAPAI CO., ARIZONA
M.A.M. **5-89**

0 100'

mn6718 MAM/dam tuc 05-16-89



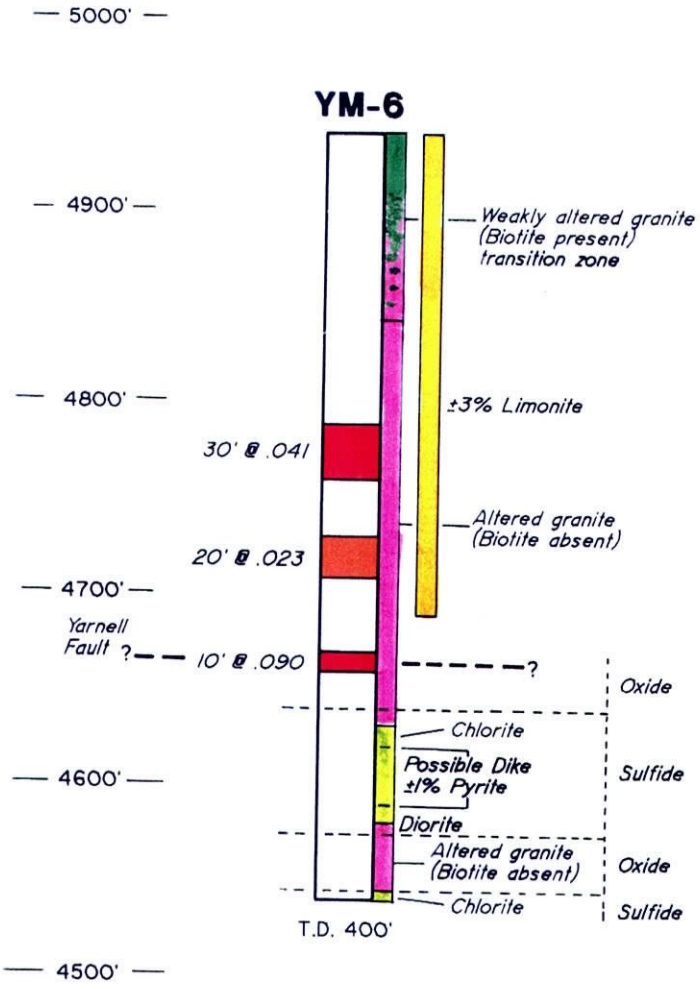
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-5

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6719 MAM/dam tuc 05-16-89



ASARCO Incorporated
YARNELL PROJECT

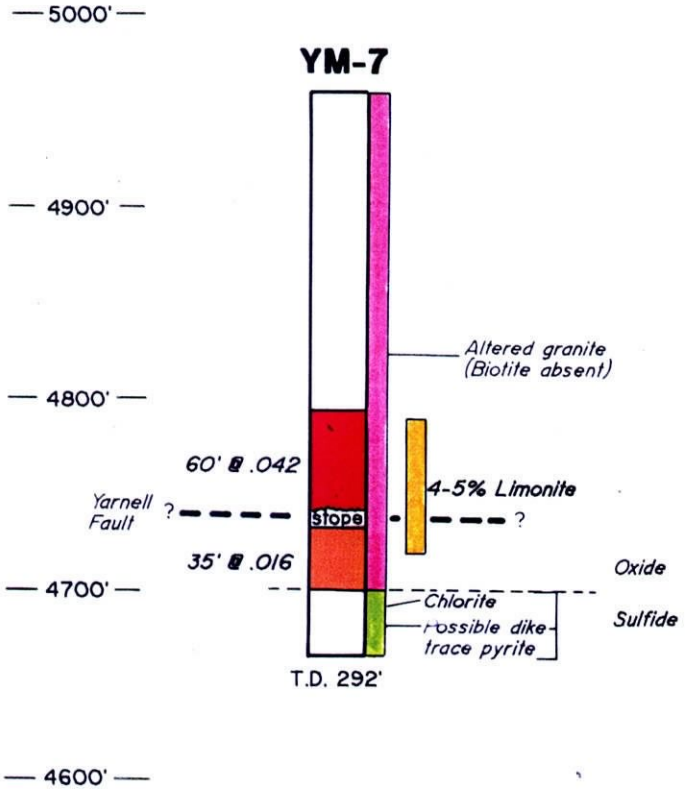
DRILL SECTION YM-6

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6720 MAM/dam tuc 05-16-89



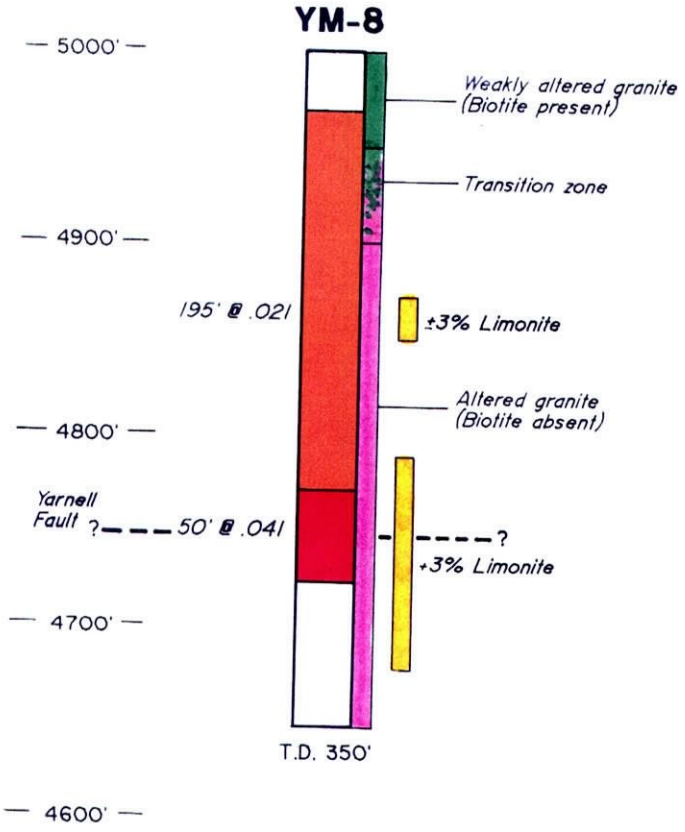
ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-7

YAVAPAI CO., ARIZONA
M.A.M. 5-89

0 100'

mn6721 MAM/dam tuc 05-16-89



ASARCO Incorporated
YARNELL PROJECT

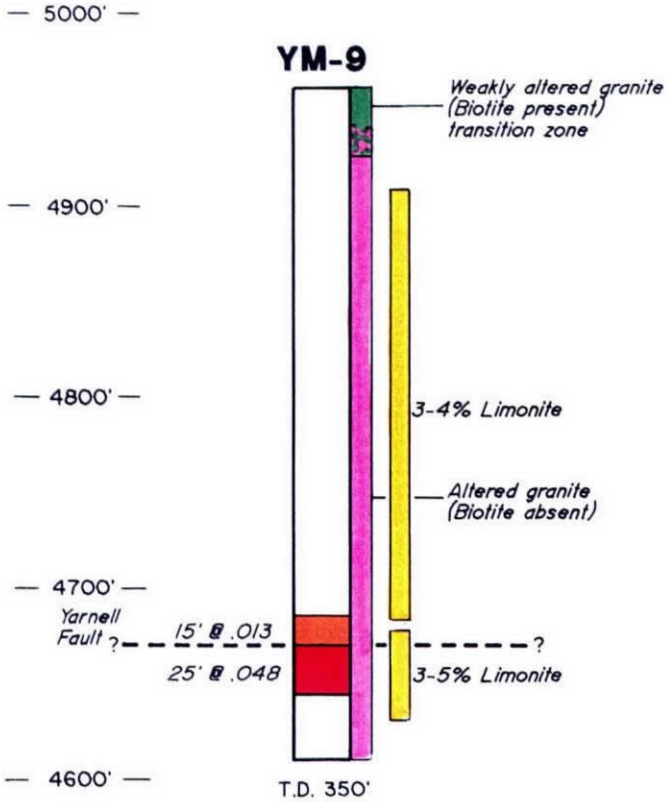
DRILL SECTION YM-8

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6722 MAM/dam tuc 05-16-89



ASARCO Incorporated
YARNELL PROJECT

DRILL SECTION YM-9

YAVAPAI CO., ARIZONA

M.A.M. **5-89**

0 100'

mn6723 MAM/dam tuc 05-16-89

ASARCO

Southwestern Exploration Division

May 19, 1989

Bud Beebe

Sample Bags
Santa Cruz Project

1000 Sample bags are being sold by the Santa Cruz Joint Venture to ASARCO Incorporated (Yarnell, EA-0444) at their original cost of $588.35. These bags were purchased 4-3-1989 under invoice 9859 of Purchase Order Number T-20-9 (Hutchinson Bag Co.), and they were charged to EA-0075 at the time of purchase.

Mark Miller will pick up the bags from the Santa Cruz warehouse.

Henry Kreis

HGK:mek

Henry G. Kreis

cc: J.D. Sell
M.A. Miller

J D8

ASARCO

Southwestern Mining Department

May 19, 1989

File Memo: Yarnell Project
Order of Magnitude - Initial Study

From a limited amount of data, Mark Miller and I put together the following initial studies for the Project on a 100% basis.

AhB would be on so/so basis. They'll make it.

1. 4 million tons ore reserve - most detail
   - 0.048 opt Au
   - 3:1 stripping ratio (waste to ore)
   - Capital and plant operation costs from D. E. Crowell's "Camp Douglas" Memo - using a modular design (Kappes Cassiday)
   - Contract mine, crush, and place on heaps - 600,000 T-ore per year
   - 70% Recovery - Au
   - No Ag credit or possible low grade ore heap leaching considered
   - One year - permits, assemble process plant, and pre-mine

2. 8 million ton ore reserve
   - Same grade, stripping ratio, etc., as 1. above, but a new carbon plant and facilities constructed on site
   - 2 million tons ore per year processed

Results of the Pre-Tax Cash Flows:

1. 4 million ton reserve 6½ years

($x1000)

Gold Price/Oz	$300.00	$350.00	$450.00
15% NPV	($ 246)	$3,473	$10,912
DCFROI	13%	47%	115%
Net Cash Flow	$2,498	$8,756	$21,272

You so/so then DCFROI is the same but the cash flow is half.

Basic Data - All

Capital	$1,800
Permits	250
Pre-Mine Cost	900
Investment Total	$2,950

Oz Gold Recovered	-	126,420 Oz
Average Cost per Oz	-	$260.00
Oper. Cost per ton of ore	-	$8.24

May 19, 1989

2. 8 million ton reserve

4 years

($x1000)

Gold Price	$350.00
15% NPV	$32,385
DCFROI	99%
Net Cash Flow	$54,876

Basic Data

Capital	$10,000
Permits	250
Pre-Mine Cost	3,500
Investment Total	$13,750

Oz Gold Recovered	-	387,000 Oz
Average Cost per Oz	-	$178.00
Oper. Cost per ton of ore	-	$7.95

CAPITAL AND OPERATING COST

1. 4 million ton reserve

CAPITAL

Modular Plant (2 ea)	$ 500,000
Preg. and Barren Ponds - @$20,000 ea.	60,000
Heap Pads - 130,000 ft^2 + 10% @ $1.28 per ft^2 4 ea	740,000
Power Plant	60,000
Water Supply	100,000
Site Prep.	100,000
	$1,560,000
15% Contingency	234,000
SAY	$1,800,000

OPERATING COST

Contract Mine @ $1.00 per ton material

PLANT	Cost Per Ton
Contract - crush, agglomerate, place	$1.75
Pad construction (during operations)	0.23
Labor and Supervision	0.79
Supplies - Cyanide, Carbon, Misc.	0.80
Power	0.25
	$3.82
+5%	0.19
SAY	$4.00

2. 8 million ton reserve

Capital - Plant and all facilities $10,000,000

Contract Mine @ $0.90 per ton material

Plant (same as above) $4.00 per ton ore

May 19, 1989

SUMMARY

1.) This is an order of magnitude study, in the range of accuracy of ± 35-50%.

2.) The most detailed information was developed for the 4 million ore reserve

3.) At this time, all financial evaluations were figured on a 100% project basis - since the final agreement is still being finalized. Obviously, any other final arrangement would effect these reported results and can be quickly determined.

David F. Skidmore

DFS/mck

cc: SAAnzalone
WLKurtz
JDSell
MAMiller

AMPAD EFFICIENCY LINE® 22-210

Au Price $300.00

YARNELL PROJECT

100%

($ + TONS x 1000)

Contract: Mine, Crush, Agglomerate & Place on heap — AMT

ASARCO: Oper Plant

	Pre-mine	2 YR-1	3 YR. 2	4 YR. 3	5 YR-4	6 YR-5	7 YR-6	8 YR 7	9	10	11	12
Reclamation								60				
Permits	$250											
6 mo												
CAPITAL	$1800											
PRODUCTION												
T-ORE	200T	600T	→					200T				
@ 0.043 oz												
@ 70% Rec	—	18,060	→					19060				
NSR	—	$5364	→					$5364				
Mine Cost $1	$200	$600	→					$200				
WASTE-T	300T	1000T	2000T	2400T		→	1500T	0				
MINE-$1.00	$300	$1000	$2000	$2400		→	$1500	0				
Plant Cost								$900				
T/ore @ 4.00		$2400	→					$500				
Premine to heap @ $1.50	$300											
TOT Op Cost	$800	$4000	$5000	$5400		→	$4500	$1500				
Oper Ditrons	<$800>	$1364	$364	<$36>			$864	3864				
Misc + NYO Admin @ 5%	$100	$120	→					$120				
Net B-Tx	<$900>	$1244	$244	<156>			$744	$3744				
Net C.F.	<$2950>	$1244	$244	<$156>		→	$744	$3684		$2498		

15% NPV = <$246>

DCFROI = 12.8%

15% NPV = <$1246>

DCFROI = 10.2%

Increase investment in Pre-Mine to $1,000 to 2

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO
DATE: 05/19/89
TEST No.: 5
PROJECT No: M-175
FEED: YM - 5 (290-295)
CONDUCTED BY: E.I./A.M.
OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)		CONTENT (mg)		DISTRIBUTION %		DISTRIBUTION %	
SOLUTIONS	gram/ml	Au	Ag	Au		Ag		Au		Ag	
.....	.....	.....	.....	.....		.....		.....		.....	
	1000										
	1000										
	1000										
24 hrs.	1000	0.024	0.00	0.823		0.07		76.97		7.35	
48 hrs.	980	0.022	0.00	0.756		0.07		70.69		7.35	
72 hrs.	1470	0.014	0.00	0.737		0.10		68.95		11.09	
Leach Res	484	0.020	0.05	0.332		0.830		31.05		88.91	
Calc.Head	500	0.062	0.05								
HeadAssay		0.052	<0.05								

Trait Assay 0.061

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		11.5
4 hrs.	1000					11.5
8 hrs.	1000					11.3
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1470	1.18	0.55	0.12	3.77	10.8

AMPAD EFFICIENCY LINE® 22-210

5-19-99

($+TONS x 1000)

YARNELL PROJECT

Au PRICE $350.00

Large Resource - Big Plant

Contract: Mine, Crush, Agglomerate + Place on heap

ASARCO: Oper Plant

	Pre-mine	2 YR-1	3 YR. 2	4 YR. 3	5 YR-4	6 YR-5	7 YR-6	8 YR 7	9	10	11	12	13
						$100	Reclamation						
Permits 6 mo	$250												
CAPITAL	$10,000												
PRODUCTION													
T-ORE	667T	2000T	→		2000T	—							
@ 0.043 oz										TOTALS			
@ 70% Rec	—	86,000 oz	→			43,000 oz				387,000	oz Au		
NSR	—	$29,799	→			$14,900							
Mine Cost @ 90¢	$600	$1800	→										
WASTE-T	2000T	5000T	8000T	8000T	4000T	—			Gold Price 350.00				
mine - $1.60 90¢	$1800	$4500	$7200	$7200	$3600								
Plant Cost T/ore @ 4.00		$8000	→		$8000	$1668							
Premine to heap cost $2/T	$1000												
TOT Op. Cost	<$3400>	<14,300>	<17,000>	→	<13,400>	<1668>				66,768		$172.53	
Oper Income	<$3400>	$15,499	12,799	→	16,399	$13,232							
Misc + NYO Admin + RS%	$100	$400	→			$400				2,100		5.43	
												$177.96 COST PER OZ	
Net B-Tx	<$3500>	$15,099	12,399	→	15,999	$12,832							
Net. C.F.	<$13,750>	$15,099	$12,399	12,399	15,999	$12,732							

15% NPV = $32,385

DCF ROI = 98.9%

(15% NPV = $22,385

DCF ROI = 51%)

($10 x 106 CAP)

5/15/89

AMPAD EFFICIENCY LINE® 22-210

Au Price $350.00

YARNELL PROJECT

(# + TONS X 1000)

9 mt

Contract: Mine, Crush, Agglomer & place on heap

ASARCO: Oper Plant

	Pre-mine	2 YR-1	3 YR 2	4 YR-3	5 YR-4	6 YR-5	7 YR-6	8 YR 7	9	10	11	12
Reclamation								60				
Permits 6 mo	$250											
CAPITAL	$1800											
PRODUCTION												
T-ORE	200T	600T	→					200T				
C 0.043 oz/T												
@ 70% Rec	–	18,060	→							126,420 oz		
NSR	–	$6258	→					$6258	*			
Mine Cost $1/T	$200	$600	→					$200				
WASTE-T	300T	1000T	2000T	2400T		→	1500T	0				
Mine-$1/T	$300	$1000	$2000	$2400		→	$1500	0		Gold Price		350.00
Plant Cost Tore $4/T		$2400	→					$900 * / $500 *				
Premine to heap $1/T	$300											
TOT Op Cost	$800	$4000	$5000	$5400		→	$4500	$1500		$32,000		AVG COST/OZ
Oper Ditcons	<$800>	$2258	$1258	$858		→	$1758	$4758				$253
Misc + NYO Admin + 5%	$100	$120	→				1	$120		$940		$7.44
Net B-Tx	<$900>	$2138	$1138	$738		→	$1638	$4638			TOT COST PER OZ GOLD	$260.44
Net C.F.	<$2950>	$2138	$1138	$738	$738	$738	$1638	$4578				

15% NPV = $3473

AMPAD EFFICIENCY LINE® 22-210

AU PRICE $450.00

YARNELL PROJECT

($ + TONS X 1000)

Contract: Mine, Crush, Agglomer + Place on reap

ASARCO: Oper Plant

	Pre-mine	2 YR-1	3 YR-2	4 YR-3	5 YR-4	6 YR-5	7 YR-6	8 YR 7	9	10	11	12
1								60	Reclamation			
Permits 2	$250											
6 mo 3												
CAPITAL 4	$1800											
PRODUCTION 5												
T-ORE 6	200T	600T	→					200T				
C.O. 0.043 oz 7												
@ 70% Rec 8	—	18,060	→									
NSR 9	—	$9046						$9046				
Mine Cost 10	$200	$600	→					$200				
11									Gold Price 450.00			
WASTE-T 12	300T	1000T	2000T	2400T		→	1500T	0				
MINE-$1.00 13	$300	$1000	$2000	$2400		→	$1500	0				
14												
Plant Cost 15								$800				
Tons @ $4.00 16		$2400	→					$500				
Premine to 17												
heap @ $1 18	$300											
19												
TOT Op Cost 20	$800	$4000	$5000	$5400		→	$4500	$1500				
Oper Dr Cash 21	($800)	$4046	$3046	$2646			$3546	$6546				
Misc + NZO 22												
Admin @ 5% 23	$100	$120	→					$120				
24												
Net B-Tx 25	($900)	$3926	$2926	$2526		→	$3426	$6426				
26												
27												
Net C.F. 28	($2950)	$3926	$2926	$2526	$2526	$2526	$3426	$6366				
29												
30												
31												

15% NPV = $10,912

DCFROT = 115%

To JDS

Date 5/22 Time 10:07

WHILE YOU WERE OUT

M Eugene Iasillo

of

Phone 623-1327

Area Code Number Extension

TELEPHONED		PLEASE CALL	✓
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message Completed leach test - going to send out report today. copy to MBM + TDM - proofreading jt letter (5/25)

Operator

AMPAD EFFICIENCY®

23-000 50 SHT. PAD
23-001 250 SHT. DISPENSER BOX

JDS

ASARCO Incorporated
MAY 23 1989
SW Exploration

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/19/89

TEST No.: 4

PROJECT No: M-175

FEED: YM - 2 (145-150)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.015	0.00	0.514	0.07	79.59	7.20
48 hrs.	980	0.015	0.00	0.514	0.07	79.59	7.20
72 hrs.	1420	0.009	0.00	0.459	0.10	70.99	10.51
Leach Res	497	0.011	0.05	0.187	0.852	29.01	89.49
Calc.Head	500	0.038	0.06				
HeadAssay		0.049	(0.05				
Dried Assay		0.027					

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.0 ~~3.00~~		12.0
4 hrs.	1000					11.9
8 hrs.	1000					11.2
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1420	1.18	0.65	0.10	5.75	10.8

5/22/89

EXPLORATION WELL(S)

FILING FEE $10.00

DEPARTMENT OF WATER RESOURCES (DWR)
NOTICE OF INTENTION TO DRILL
EXPLORATION WELL(S)

EXPLORATION WELL(S)

JDS

Section 45-596, Arizona Revised Statutes and Rule R12-15-817 provide: Prior to drilling one or more exploration wells, the well owner, lessee or exploration firm shall file a Notice of Intention to Drill on a form provided by the Department.

WELL/LAND LOCATION

1. Township 10 N/~~X~~
   Range 5 ~~X~~/W
   Section 14

In the case of a single well, list 10-acre subdivision

____ ¼, ____ ¼, ____ ¼

2. County Yavapai

3. Applicant:
   ASARCO Incorporated
   Name
   P.O. Box 5747
   Address
   Tucson, AZ 87503
   City State Zip

4. M.A.Miller/J.D. Sell
   NAME OF CONTACT PERSON
   Phone 602-792-3010

5. Owner of well:
   Applicant
   Name
   same as above.
   Address
   City State Zip

6. Purpose of well(s) drilled pursuant to this Notice:
   Mineral Exploration X
   Geotechnical ____
   Cathodic Protection ____
   Grounding ____

7. Number of wells 25
   (See Condition 3 on reverse)

8. Owner of land:
   Norgold Resources
   Name
   P.O. Box 12122
   Address
   Vancouver, B.C. V6B-4N6
   City State Zip

9. DESCRIPTION OF WELL:
   Diameter 5½ inches
   Depth 500 feet
   Type of casing Steel Surf.
   (If none, so state)

10. Construction will start:
    6 1 1989
    Month Day Year

11. Drilling firm:
    Drilling Services Co.
    Name
    12030 E. Riggs Road
    Address
    Chandler, AZ 85249
    City State Zip
    52
    DWR License Number

12. Period well will remain in use 0 months.

13. Proposed method of abandonment of well(s) after project is completed:
    Per rule R-12-15-816

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

File No. ____
Filed ____ By ____
Input ____ By ____
Duplicate Mailed ____ By ____
Registration ____
AMA/INA ____
W/S ____ S/B ____

14. Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility or storage area of hazardous materials? Yes__ No X
    If yes, a request for a variance must accompany this application pursuant to R12-15-820.

GENERAL INSTRUCTIONS

1. Fill out this form in duplicate and mail to Department of Water Resources, Suite 100, 99 East Virginia, Phoenix, Arizona 85004.
2. Proper filing fee of $10.00 must accompany Notice.

I state that this Notice is filed in compliance with Rule R12-15-809 and is complete and correct to the best of my knowledge and belief and that I understand the conditions set forth on the reverse side of this form.

DATE 5-22-89

Signature of Applicant

DWR 55-40-8/86 (Revised)

CONDITIONS

1. Construction and abandonment standards for all wells shall be in accordance with DWR Rules R12-15-811 and R12-15-816.

2. Drilling of the well(s) shall be completed within one (1) year after the date of Notice.

3. Mineral exploration, geotechnical, cathodic protection or grounding holes of 100 feet of depth or less do not apply to these provisions and do not require filing. However, if water is encountered during the drilling of these wells, then the well(s) must be properly abandoned in accordance with Condition 1 above.

4. More than one well may be drilled under a single notice for mineral exploration, geotechnical, cathodic protection and grounding purposes, so long as they are located within a single section.

5. A Project Completion Report, DWR-55-42-10/83, for each hole is required within 30 days of completion of the project.

6. Pump equipment may not be installed on wells drilled for mineral exploration, geotechnical, cathodic protection or grounding purposes.

7. Special construction standards required pursuant to R12-15-821: _____

_____

_____

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/19/89

TEST No.: 6

PROJECT No: M-175

FEED: YM - 8 (230-235)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.021	0.02	0.720	0.51	85.09	20.98
48 hrs.	980	0.021	0.02	0.720	0.68	85.09	27.83
72 hrs.	1420	0.014	0.02	0.710	0.75	83.95	30.77
Leach Res	495	0.008	0.10	0.136	1.697	16.05	69.23
Calc.Head	500	0.049	0.14				
HeadAssay		0.040	<0.05				

Head Assay 0.044

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		11.5
4 hrs.	1000					11.5
8 hrs.	1000					11.3
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1420	1.18	0.66	0.12	3.70	10.8

MARK MILLER 0657 514
327-8159
2851 N. CLOVERLAND
TUCSON, AZ 85712

5-22 19 89 91-7001/3221

PAY TO THE ORDER OF DWR $ 10 00/100

TEN DOLLARS & no/100 DOLLARS

WILMOT/SPEEDWAY OFFICE
1100 NORTH WILMOT
TUCSON, ARIZONA 85712

MeraBank
A FEDERAL SAVINGS BANK

MEMO DWR Permit

⑆322170016⑆0514⑈ 936502684 0⑈

Rocky Mountain Bank Note B

ASARCO

Southwestern Exploration Division

May 22, 1989

R.L. Brown
New York Office

Yarnell Project
Order of Magnitude Study

At your request Dave Skidmore and I have constructed several DCF-ROI's. The attached memo by D.F. Skidmore details these scenarios. Work sheets are available in Tucson. The attached Plan and Sections show a conceptual mine plan for a 4 million ton deposit mined over 7 years at 2000 TPD. Calculation for an 8 MT deposit were extrapolated from the 4 MT numbers. Stripping ratios were calculated using the cross sections.

The calculations are based upon a 100% ownership. To determine the 51/49 split divide the N.P.V. and Net Cash flow by 51/49, respectively. ROI's and production cost/oz. $ remain the same. Asarco's cash contribution will also be divided appropriately.

One needs to remember that the numbers generated by this study are in orders of magnitude only but the $260/oz. production cost for the 4 million ton reserve provides a significant cushion for profitability at lower gold prices.

MAM:mek

Mark A. Miller

cc: J.D. Sell
W.L. Kurtz

6/21/89 - Copies sent with DFS memos 5/19/89 & 5/22/89 and with Drilling Progress, and Sections X-X' and Y-Y' to:

R.L. Brown
S.A. Anzalone
W.L. Kurtz
J.D. Sell
D.F. Skidmore

ASARCO

Southwestern Mining Department

May 22, 1989

ASARCO Inc.

MAY 22 1989

SW Exploration

File Memo: Yarnell Project

Further to my May 19, 1989 memo, same subject, slight errors were discovered in the reported 15% NPV calculations and some new sensitivity analysis were completed for the 4 million ton reserve.

I continue to report most of the work on a 100% project basis since one can easily convert to a 50/50 or other basis as explained below.

The sensitivity analysis was added so that each one could do their own "what if's" or other analyses if the input data appeared wrong!

A. 4 Million Ton Reserve
($x1000)

Gold Price/oz	$300.00	$350.00	$450.00
1. 100% Project Basis (Base Case)			
15% NPV [1.]	($214)	$3,020	$9,488
DCFROI	12.8%	47%	115%
Net Cash Flow	$2,498	$8,756	$21,272

(1. slight change from May 19, 1989 memo)

2. *50% Project Basis			
15% NPV	($107)	$1,510	$4,744
DCFROI	12.8%	47%	115%
Net Cash Flow	$1,249	$4,378	$10,636

* As one can determine that the 50% basis is exactly ½ of the NPV and Cash Flow compared to the 100% basis - no effect on DCFROI - therefore, only 100% basis will be used to display the data

3. *Sensitivity - 100% Project Basis*
$350.00 Gold Price

	15% NPV	DCFROI	NET CASH FLOW	TOTAL OPER. COST PER OZ
a. Base Case	$3,020	47.0%	$8,756	$260
b. Plus $1 Million Capital	$2,150	32.4%	$7,756	$260
c. Ore Grade -5%	$1,967	35.7%	$6,719	$273
d. Plant Recovery -5%	$1,403	29.7%	$5,627	$281
e. Plus 20¢ per ton -matl.-Contract Mine	$1,277	27.8%	$5,556	$286
f. Plus $1.00 Plant Operating Cost	$ 806	23.0%	$4,546	$294
g. (e. + f.) combined	($ 197)	6.4%	$1,406	$319
h. (b.+ e. + f.) combined	($1,786)	1.5%	$ 406	$319

B. *8 Million Ton Reserve*

1. $350.00 Gold Price, ($x1000), 100% Project Basis

15% NPV *	$28,161
DCFROI	98.8%
Net Cash Flow	$54,876

(* slight change from May 19, 1989 memo)

2. No sensitivity analysis run.

David F. Skidmore

DFS/mck

cc: SAAnzalone
WLKurtz
JDSell
MAMiller

cc: R.L. Brown (NY Via Fax)

ASARCO

Southwestern Mining Department

May 19, 1989

MAY 22 1989
S.W. Exploration

File Memo: Yarnell Project
Order of Magnitude - Initial Study

From a limited amount of data, Mark Miller and I put together the following initial studies for the Project on a 100% basis.

1. 4 million tons ore reserve - most detail
   - 0.048 opt Au
   - 3:1 stripping ratio (waste to ore)
   - Capital and plant operation costs from D. E. Crowell's "Camp Douglas" Memo - using a modular design (Kappes Cassiday)
   - Contract mine, crush, and place on heaps - 600,000 T-ore per year
   - 70% Recovery - Au
   - No Ag credit or possible low grade ore heap leaching considered
   - One year - permits, assemble process plant, and pre-mine

2. 8 million ton ore reserve
   - Same grade, stripping ratio, etc., as 1. above, but a new carbon plant and facilities constructed on site
   - 2 million tons ore per year processed

Results of the Pre-Tax Cash Flows:

1. 4 million ton reserve
   ($x1000)

Gold Price/Oz	$300.00	$350.00	$450.00
15% NPV	($ 246)	$3,473	$10,912
DCFROI	13%	47%	115%
Net Cash Flow	$2,498	$8,756	$21,272

Basic Data - All	
Capital	$1,800
Permits	250
Pre-Mine Cost	900
Investment Total	$2,950

Oz Gold Recovered	-	126,420 Oz
Average Cost per Oz	-	$260.00
Oper. Cost per ton of ore	-	$8.24

May 19, 1989

2. 8 million ton reserve
($x1000)

Gold Price	$350.00
15% NPV	$32,385
DCFROI	99%
Net Cash Flow	$54,876

Basic Data

Capital	$10,000
Permits	250
Per-Mine Cost	3,500
Investment Total	$13,750

Oz Gold Recovered	-	387,000 Oz
Average Cost per Oz	-	$178.00
Oper. Cost per ton of ore	-	$7.95

CAPITAL AND OPERATING COST

1. 4 million ton reserve

CAPITAL

Modular Plant (2 ea)	$ 500,000
Preg. and Barren Ponds - @$20,000 ea.	60,000
Heap Pads - 130,000 ft^2 + 10% @ $1.28 per ft^2 4 ea	740,000
Power Plant	60,000
Water Supply	100,000
Site Prep.	100,000
	$1,560,000
15% Contingency	234,000
SAY	$1,800,000

OPERATING COST

Contract Mine @ $1.00 per ton material

PLANT

	Cost Per Ton
Contract - crush, agglomerate, place	$1.75
Pad construction (during operations)	0.23
Labor and Supervision	0.79
Supplies - Cyanide, Carbon, Misc.	0.80
Power	0.25
	$3.82
+5%	0.19
SAY	$4.00

2. 8 million ton reserve

Capital - Plant and all facilities $10,000,000
Contract Mine @ $0.90 per ton material
Plant (same as above) $4.00 per ton ore

May 19, 1989

SUMMARY

1.) This is an order of magnitude study, in the range of accuracy of ± 35-50%.

2.) The most detailed information was developed for the 4 million ore reserve

3.) At this time, all financial evaluations were figured on a 100% project basis - since the final agreement is still being finalized. Obviously, any other final arrangement would effect these reported results and can be quickly determined.

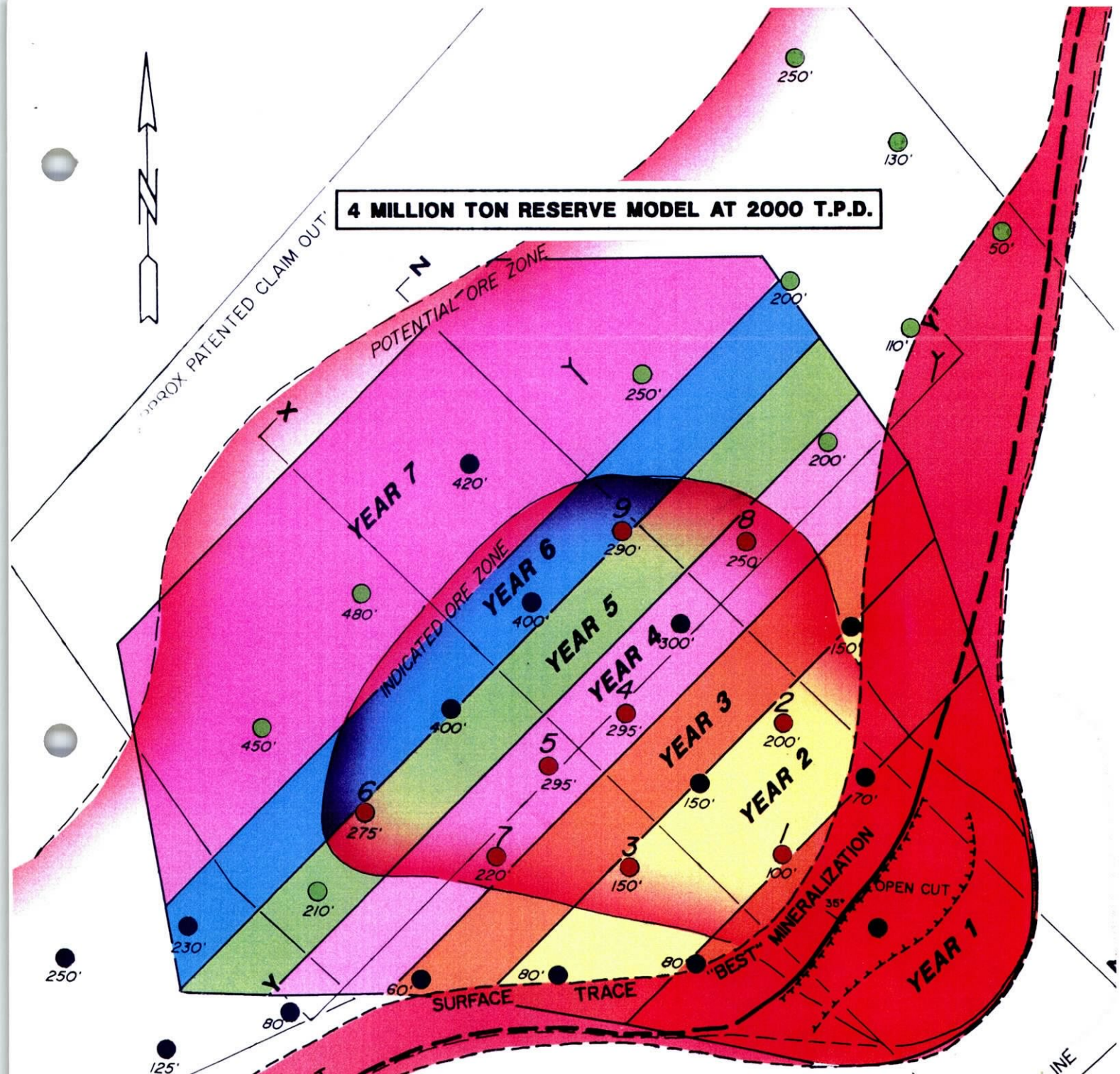
David F. Skidmore

DFS/mck

cc: SAAnzalone
WLKurtz
JDSell
MAMiller

THESE NUMBERS ARE BEING REFINED AND DAVE IS ALSO DOING SENSITIVITY STUDIES ON THE RESULTS. I WILL SEND THESE WHEN I RECIEVE THEM.

Mark



ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

EXPLANATION

5 / 295' — Completed drill hole depth to Yarnell Fault

210' — Proposed reverse circulation drill hole est. depth to Yarnell Fault

210' — Proposed conventional rotary drill hole est. depth to Yarnell Fault

APPROX PATENTED CLAIM OUTLINE

T. 10 N., R. 5 W., SEC. 14

ASARCO Incorporated

YARNELL PROJECT

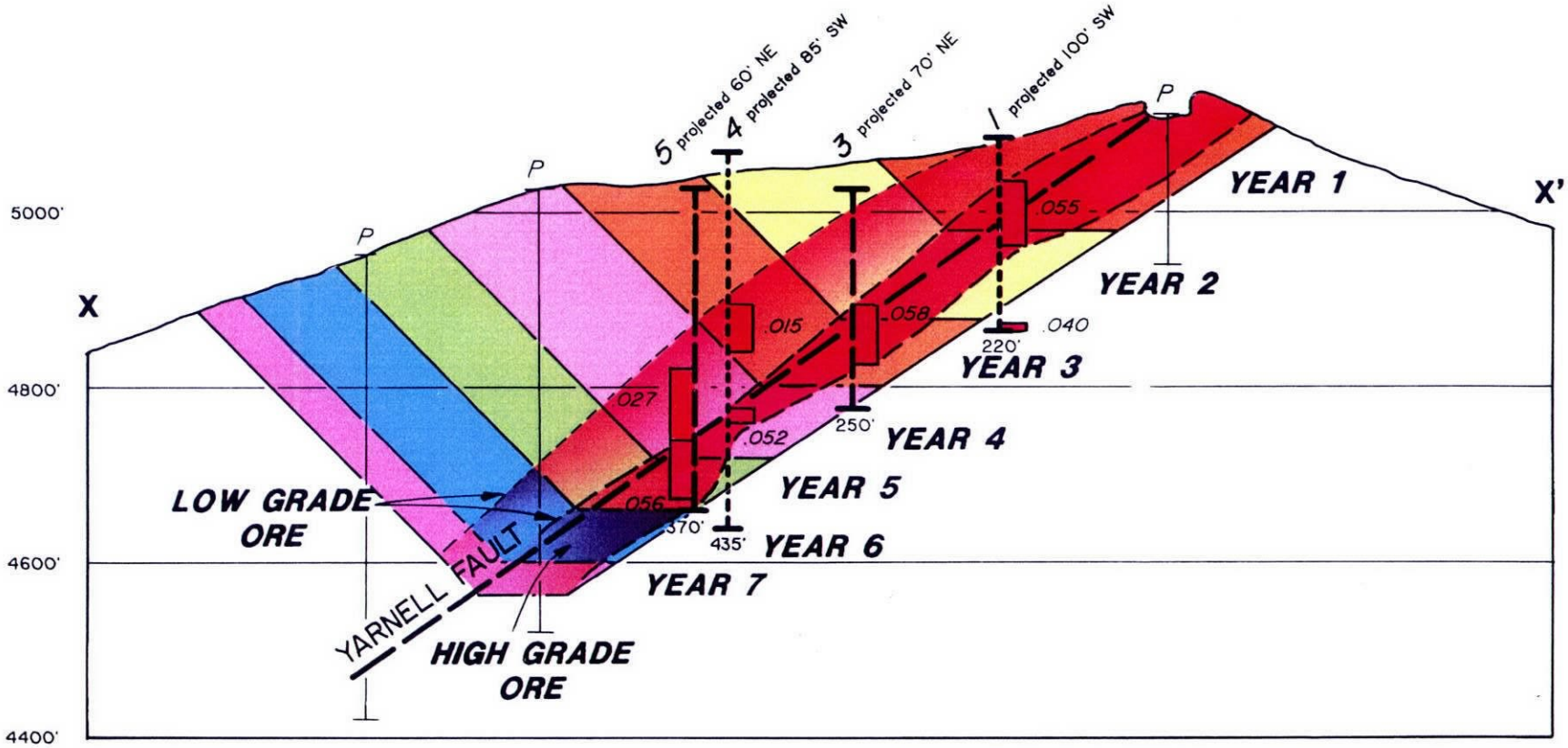
DRILLING PROGRESS

YAVAPAI CO. ARIZONA

0 — 200'

contour interval 40'

mn6732 MAM/dam tuc 06-09-89



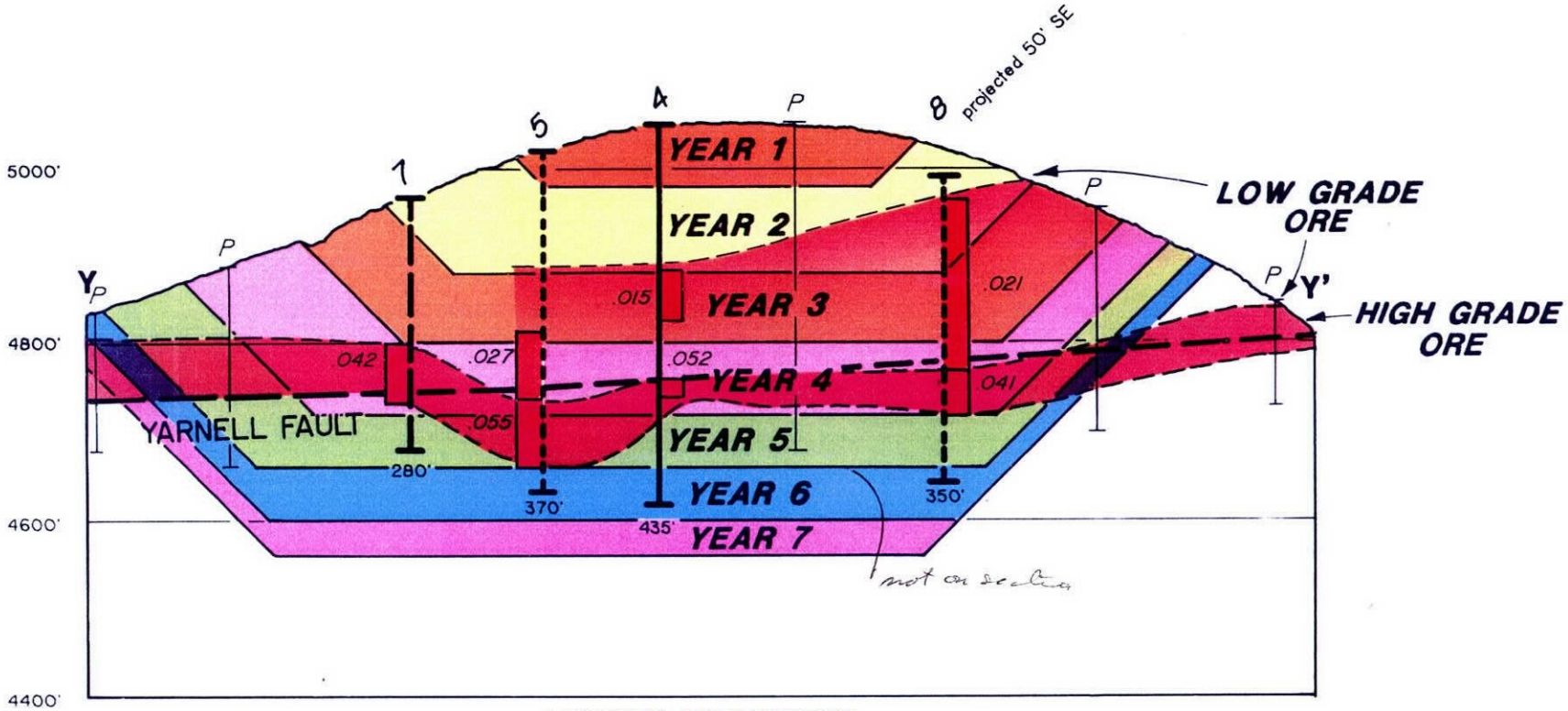
LOOKING NORTHEAST

4 MILLION TON RESERVE MODEL AT 2000 T.P.D.

ASARCO Incorporated
YARNELL PROJECT
SECTION X - X'
YAVAPAI CO. ARIZONA

0 200'

mn6731 MAM/dam fuc 06-09-89



LOOKING NORTHWEST

4 MILLION TON RESERVE MODEL AT 2000 T.P.D.

ASARCO Incorporated
YARNELL PROJECT
SECTION Y - Y'
YAVAPAI CO. ARIZONA

0 200'

mn6730 MAM/dam luc 06-09-89

ASARCO

Southwestern Exploration Division

May 22, 1989

R.L. Brown
New York Office

Yarnell Project
Order of Magnitude Study

At your request Dave Skidmore and I have constructed several DCF-ROI's. The attached memo by D.F. Skidmore details these scenarios. Work sheets are available in Tucson. The attached Plan and Sections show a conceptual mine plan for a 4 million ton deposit mined over 7 years at 2000 TPD. Calculation for an 8 MT deposit were extrapolated from the 4 MT numbers. Stripping ratios were calculated using the cross sections.

The calculations are based upon a 100% ownership. To determine the 51/49 split divide the N.P.V. and Net Cash flow by 51/49, respectively. ROI's and production cost/oz. $ remain the same. Asarco's cash contribution will also be divided appropriately.

One needs to remember that the numbers generated by this study are in orders of magnitude only but the $260/oz. production cost for the 4 million ton reserve provides a significant cushion for profitability at lower gold prices.

Mark A. Miller

MAM:mek

cc: J.D. Sell
W.L. Kurtz

ASARCO

Southwestern Mining Department

May 22, 1989

ASARCO Incorporated

MAY 22 1989

SW Exploration

File Memo: *Yarnell Project*

Further to my May 19, 1989 memo, same subject, slight errors were discovered in the reported 15% NPV calculations and some new sensitivity analysis were completed for the 4 million ton reserve.

I continue to report most of the work on a 100% project basis since one can easily convert to a 50/50 or other basis as explained below.

The sensitivity analysis was added so that each one could do their own "what if's" or other analyses if the input data appeared wrong!

A. *4 Million Ton Reserve*
($x1000)

Gold Price/oz	$300.00	$350.00	$450.00
1. 100% Project Basis (Base Case)			
15% NPV [1.]	($214)	$3,020	$9,488
DCFROI	12.8%	47%	115%
Net Cash Flow	$2,498	$8,756	$21,272

(1. slight change from May 19, 1989 memo)

2. *50% Project Basis			
15% NPV	($107)	$1,510	$4,744
DCFROI	12.8%	47%	115%
Net Cash Flow	$1,249	$4,378	$10,636

* *As one can determine that the 50% basis is exactly ½ of the NPV and Cash Flow compared to the 100% basis - no effect on DCFROI - therefore, only 100% basis will be used to display the data*

3. *Sensitivity - 100% Project Basis*
$350.00 Gold Price

	15% NPV	DCFROI	NET CASH FLOW	TOTAL OPER. COST PER OZ
a. Base Case	$3,020	47.0%	$8,756	$260
b. Plus $1 Million Capital	$2,150	32.4%	$7,756	$260
c. Ore Grade -5%	$1,967	35.7%	$6,719	$273
d. Plant Recovery -5%	$1,403	29.7%	$5,627	$281
e. Plus 20¢ per ton -matl.-Contract Mine	$1,277	27.8%	$5,556	$286
f. Plus $1.00 Plant Operating Cost	$ 806	23.0%	$4,546	$294
g. (e. + f.) combined	($ 197)	6.4%	$1,406	$319
h. (b.+ e. + f.) combined	($1,786)	1.5%	$ 406	$319

B. *8 Million Ton Reserve*

1. *$350.00 Gold Price, ($x1000), 100% Project Basis*

15% NPV *	$28,161
DCFROI	98.8%
Net Cash Flow	$54,876

(* slight change from May 19, 1989 memo)

2. *No sensitivity analysis run.*

David F. Skidmore

DFS/mck

cc: SAAnzalone
WLKurtz
JDSell
MAMiller

cc: R.L. Brown (NY Via Fax)

ASARCO

Southwestern Mining Department

May 19, 1989

MAY 22 1989
SW Exploration

File Memo: Yarnell Project
Order of Magnitude - Initial Study

From a limited amount of data, Mark Miller and I put together the following initial studies for the Project on a 100% basis.

1. 4 million tons ore reserve - most detail
   - 0.048 opt Au
   - 3:1 stripping ratio (waste to ore)
   - Capital and plant operation costs from D. E. Crowell's "Camp Douglas" Memo - using a modular design (Kappes Cassiday)
   - Contract mine, crush, and place on heaps - 600,000 T-ore per year
   - 70% Recovery - Au
   - No Ag credit or possible low grade ore heap leaching considered
   - One year - permits, assemble process plant, and pre-mine

2. 8 million ton ore reserve
   - Same grade, stripping ratio, etc., as 1. above, but a new carbon plant and facilities constructed on site
   - 2 million tons ore per year processed

Results of the Pre-Tax Cash Flows:

1. 4 million ton reserve
   ($x1000)

Gold Price/Oz	$300.00	$350.00	$450.00
15% NPV	($ 246)	$3,473	$10,912
DCFROI	13%	47%	115%
Net Cash Flow	$2,498	$8,756	$21,272

Basic Data - All	
Capital	$1,800
Permits	250
Pre-Mine Cost	900
Investment Total	$2,950

Oz Gold Recovered	-	126,420 Oz
Average Cost per Oz	-	$260.00
Oper. Cost per ton of ore	-	$8.24

May 19, 1989

2. 8 million ton reserve
($x1000)

Gold Price	$350.00
15% NPV	$32,385
DCFROI	99%
Net Cash Flow	$54,876

Basic Data

Capital	$10,000
Permits	250
Per-Mine Cost	3,500
Investment Total	$13,750

Oz Gold Recovered	-	387,000 Oz
Average Cost per Oz	-	$178.00
Oper. Cost per ton of ore	-	$7.95

CAPITAL AND OPERATING COST

1. 4 million ton reserve

CAPITAL

Modular Plant (2 ea)	$ 500,000
Preg. and Barren Ponds - @$20,000 ea.	60,000
Heap Pads - 130,000 ft^2 + 10% @ $1.28 per ft^2 4 ea	740,000
Power Plant	60,000
Water Supply	100,000
Site Prep.	100,000
	$1,560,000
15% Contingency	234,000
SAY	$1,800,000

OPERATING COST

Contract Mine @ $1.00 per ton material

PLANT

	Cost Per Ton
Contract - crush, agglomerate, place	$1.75
Pad construction (during operations)	0.23
Labor and Supervision	0.79
Supplies - Cyanide, Carbon, Misc.	0.80
Power	0.25
	$3.82
+5%	0.19
SAY	$4.00

2. 8 million ton reserve

Capital - Plant and all facilities $10,000,000
Contract Mine @ $0.90 per ton material
Plant (same as above) $4.00 per ton ore

May 19, 1989

SUMMARY

1.) This is an order of magnitude study, in the range of accuracy of ± 35-50%.

2.) The most detailed information was developed for the 4 million ore reserve

3.) At this time, all financial evaluations were figured on a 100% project basis - since the final agreement is still being finalized. Obviously, any other final arrangement would effect these reported results and can be quickly determined.

David F. Skidmore

DFS/mck

cc: SAAnzalone
WLKurtz
JDSell
MAMiller

THESE NUMBERS ARE BEING REFINED AND DAVE IS ALSO DOING SENSITIVITY STUDIES ON THE RESULTS. I WILL SEND THESE WHEN I RECIEVE THEM.

Mack

ASARCO

Southwestern Exploration Division

JDS

May 23, 1989

J.D. Sell

Summer Vacation

As I discussed with you, I am planning to be on vacation from July 7 to 21. I have asked Jim Rasmussen as to the possibility of filling in for me during my absence, and he has tentatively agreed to do so with your permission. We should be nearing the end of the drilling program at this time.

MAM:mek

Mark A. Miller

cc: J.D. Rasmussen

JDS

ASARCO

Southwestern Exploration Division

May 23, 1989

J.D. Sell

Triad Minerals
Yarnell Project

I plan to again use Triad Minerals as the assayer for our drill program. I will send periodical checks out of each assay batch and will also include Darby's standard with all batches. This should provide us with enough control over our sampling.

Triad will charge us $10.00/sample for a gold assay and will pick up all samples on site on a daily basis.

Mark A. Miller

MAM:mek

cc: W.L. Kurtz

ASARCO

Southwestern Exploration Division

JDS

May 23, 1989

J.D. Sell

Summer Employment
Yarnell Project

I have decided to hire Steve Duncan to help me at Yarnell. His job will be sitting the drill and helping the drill crew catch samples and also take interval samples. He will also help me in hole locations, etc. I will be paying hime hourly at $7.50/hour. If you have no objections, he will start with me probably the 28-30th of May. We will both be living at the house on the property. Duration of the job will be 4-6 weeks.

MAM:mek

Mark A. Miller

ASARCO

JDS

Exploration Department
Southwestern United States Division

James D. Sell
Manager

Certified Mail
Return Receipt

May 23, 1989

Mr. A.J. Roman, President
Western Building & Mining Co., Inc.
P.O. Box 4006
Reading, PA 19606

Western Building Monthly Payment
Yarnell Project
Yavapai County, Arizona

Dear Mr. Roman:

Enclosed is the Asarco check for $1,000 U.S. for the monthly payment of June 1, 1989 due Western Building as per Article 4 of the Norgold Resources, Inc. - Western Building and Mining Co., Inc. Agreement dated December 30, 1988.

Sincerely,

James D. Sell

James D. Sell

JDS:mek
Enc.

cc:. W.L. Kurtz
C.L. Snow
C. Moat - Norgold

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

OUCHER NO. 5-202 DATE May 1989

ASARCO INCORPORATED
TUCSON OFFICE
TUCSON, ARIZONA 85703

Western Building Monthly Payment $1,000.00

DETACH BEFORE PRESENTING FOR PAYMENT

ASARCO

OWNTOWN OFFICE
HE VALLEY NATIONAL BANK
UCSON, ARIZONA

ASARCO INCORPORATED
TUCSON OFFICE
TUCSON, ARIZONA 85703

91-2/1221

No. 0030957

May 23, 1989

AY

The sum of $1,000 and 00 cts $1,000.00

O THE ORDER OF

ASARCO INCORPORATED
TUCSON OFFICE

S K Myers

Western Building & Mining Co. Inc.
P. O. Box 4006
Reading, PA 19606

⑈030957⑈ ⑆122100024⑆ 2000⑈0673⑈

METCON Research Inc.

1844 W. Grant Road, Suite 106
Tucson, Arizona 85745

Tel: (602) 623-1327
Telex 284623 KDE UR

Replacement page.

ASARCO Incorporated

JUN 1 1989

SW Exploration

24 May 1989
EI-039-89

ASARCO, SWED
P.O. Box 5747
Tucson, AZ 85703

Attention: Mr. James D. Sell

Subject: Project No. YAR
Preliminary Cyanide Leach Tests

Dear Mr. Sell:

The following letter report is submitted to detail recent test work performed on several interval samples obtained from Skyline Labs.

1.0 INTRODUCTION

On 14 April 1989 a suite of 3 interval samples labeled YM-2, YM-5 and YM-8 were received at Metcon Research Inc. Two series of preliminary bottle roll leach tests for 24 and 72 hours leach time respectively were conducted on these samples. The procedures employed and the results obtained during this investigation are outlined herein.

2.0 SUMMARY

The metallurgical data developed in the course of this study reveals that the interval samples tested contained gold values ranging from 0.040 to 0.052 ounces per ton of ore, with only a small amount of silver detected in sample YM-8. Samples YM-2 and YM-5 had little or no silver.

The initial series of tests performed in these samples indicated that gold recoveries ranging from approximately 42 to 70 percent could be obtained from this ore. Higher gold recoveries were achieved on these samples on a second series of tests conducted for 72 hours. The precious metals recovery was monitored at 24 hours intervals during this second series of tests. The leach test results indicated that a 70 to 80 percent gold recovery was achieved in these samples. The cyanide and lime consumptions averaged approximately 0.4 and 4 pounds per ton respectively.

METCON Research Inc.

1844 W. Grant Road, Suite 106
Tucson, Arizona 85745

Tel: (602) 623-1327
Telex 284623 KDE UR

24 May 1989
EI-039-89

ASARCO, SWED
P.O. Box 5747
Tucson, AZ 85703

ASARCO Incorporated
MAY 30 1989
SW Exploration

Attention: Mr. James D. Sell

Subject: Project No. YAR
Preliminary Cyanide Leach Tests

Dear Mr. Sell:

The following letter report is submitted to detail recent test work performed on several interval samples obtained from Skyline Labs.

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The results obtained from this study indicate that a 24 hour leach retention time is suitable to achieve an optimum recovery on this ore. This study provided evidence that the gold presently in the ore is fine and readily goes into solution.

3.0 PROCEDURES

The procedures utilized for sample preparation and metallurgical testing are described as follows:

3.1 A suite of samples labeled YM-2, YM-5 and YM-8 were weighed and logged in. The samples were then crushed to minus 10 mesh, blended and representative samples were split out for testing and gold and silver assay.

3.2 A 500 gram portion of each sample was combined with 1000 ml of distilled water and 1.0 gram of lime.

3.3 The slurry was agitated on a bottle roll apparatus until the pH stabilized, then 1.0 gram of sodium cyanide was added. Addition of lime continued throughout the leach period to maintain a pH above 11.

3.4 Cyanide leaching was conducted for 24 to 72 hours. At the end of leaching, solids and liquids were separated by filtration.

3.5 Cyanide and lime consumptions were determined by titration of the combined filtrate and wash liquors.

3.6 Leached residue and pregnant solution samples were assayed for gold and silver and metallurgical calculations were performed.

4.0 RESULTS AND DISCUSSION

The results obtained during this study are discussed in the following paragraphs.

The precious metals extraction and reagent consumptions are shown in Tables 1 and 2 attached hereto.

Inspection of tabulated data indicates that an average gold recovery of 73.8 percent may be achieved in this ore by cyanidation of minus 10 mesh ore over a 72 hour leach period. Monitoring of recovery of precious metals at 24 hour intervals during leaching indicated that the overall recovery may actually be higher. In particular, samples YM-2 and YM-5 showed a 9 and 8 percent higher gold recovery respectively. Care should be exercised when evaluating these results, given the relatively low grade of the samples tested, variability in analytical data could cause wide variations when final metal distributions are calculated. Round-off error may also contribute to variation in the final results.

Further testing is strongly recommended to investigate the amenability of this ore to a heap leach process. It appears from the results obtained from these tests that the ore samples tested could be processed by a heap leaching technique. The low reagent consumptions exhibited indicate the absence of acidic components in the ore which could cause a high cyanide consumption. The cyanide consumptions observed ranged from 0.2 to 0.65 pounds per ton. The lime consumption averaged approximately 4.0 pounds per ton.

We appreciate being given the opportunity to provide technical assistance on this important project. We await your comments on this report and should you have any questions in regards to this study, please do not hesitate to contact us.

Very truly yours,

Eugenio Iasillo

Eugenio Iasillo
Process Engineer

EI:rs
cc: Mark A. Miller
Tom Henderson

ASARCO SWED.

TABLE. 1 BOTTLE ROLL LEACH TESTS

SUMMARY OF RESULTS

Products 24 hr.leach	WT/Vol	Assays (OPT) Au	Assays (OPT) Ag	Content Au	Content Ag	% Recovery Au	% Recovery Ag	Consumption of Reagents(lb/ton) NaCN	Consumption of Reagents(lb/ton) CaO
YM2(145-150)									
Preg+Wash	1360	0.008	0.002	0.022	0.01	42.19	52.26	0.47	4.78
Residue	497	0.030	0.005	0.030	0.01	57.81	47.74		
Calc Head		0.052	0.010						
AssayHead		0.049	<0.05						
YM5(290-295)									
Preg+Wash	1370	0.013	0.002	0.036	0.01	58.81	52.34	0.22	4.64
Residue	499	0.025	0.005	0.025	0.01	41.19	47.66		
Calc Head		0.061	0.010						
AssayHead		0.052	<0.05						
YM8(230-235)									
Preg+Wash	1320	0.013	0.002	0.035	0.01	69.80	1.17	0.31	4.73
Residue	495	0.015	0.450	0.015	0.45	30.20	98.83		
Calc Head		0.050	0.455						
Assayhead		0.040	<0.05						
AVERAGE						56.93	35.26	0.33	4.72

TABLE. 2 BOTTLE ROLL LEACH TESTS

SUMMARY OF RESULTS

Products 72 hr.leach	WT/Vol	Assays (OPT) Au	Assays (OPT) Ag	Content Au	Content Ag	% Recovery Au	% Recovery Ag	Consumption of Reagents(lb/ton) NaCN	Consumption of Reagents(lb/ton) CaO
YM2(145-150)									
Preg+Wash	1420	0.009	0.002	0.026	0.01	70.04	53.33	0.65	3.74
Residue	497	0.011	0.005	0.011	0.01	29.96	46.67		
Calc Head		0.037	0.011						
AssayHead		0.049	<0.05						
YM5(290-295)									
Preg+Wash	1470	0.014	0.002	0.043	0.01	68.01	54.85	0.55	3.77
Residue	484	0.020	0.005	0.020	0.01	31.99	45.15		
Calc Head		0.063	0.011						
AssayHead		0.052	<0.05						
YM8(230-235)									
Preg+Wash	1420	0.014	0.020	0.040	0.06	83.39	36.46	0.66	3.70
Residue	495	0.008	0.100	0.008	0.10	16.61	63.54		
Calc Head		0.048	0.157						
Assayhead		0.040	<0.05						
AVERAGE						73.81	48.21	0.62	3.74

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 1

PROJECT No: M-175

FEED: YM - 2 (145-150)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: SCOPING LEACH TEST

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)		CONTENT (mg)		DISTRIBUTION %		DISTRIBUTION %	
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1000										
	1000										
	1000										
24 hrs.	1360	0.008	0.00	0.373	0.09	42.19	52.26				
48 hrs.											
72 hrs.											
Leach Res	497	0.030	0.01	0.511	0.085	57.81	47.74				
Calc.Head	500	0.052	0.01								
HeadAssay		0.049	<0.05								

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		3.00		12.2
4 hrs.	1000					
8 hrs.	1000					
24 hrs.	1360	1.30	0.47	0.46	4.78	11.6
48 hrs.						
72 hrs.						

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 2

PROJECT No: M-175

FEED: YM - 5 (290-295)A

CONDUCTED BY: E.I./A.M.

OBJECTIVE: SCOPING LEACH TEST

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1370	0.013	0.00	0.611	0.09	58.81	52.34
48 hrs.							
72 hrs.							
Leach Res	499	0.025	0.01	0.428	0.086	41.19	47.66
Calc.Head	500	0.061	0.01				
HeadAssay		0.052	(0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		3.00		12.1
4 hrs.	1000					
8 hrs.	1000					
24 hrs.	1370	1.38	0.22	0.50	4.64	11.7
48 hrs.						
72 hrs.						

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 3

PROJECT No: M-175

FEED: YM - 8 (230-235)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: SCOPING LEACH TEST

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)		DISTRIBUTION %	
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1320	0.013	0.00	0.588	0.09	69.80	1.17
48 hrs.							
72 hrs.							
Leach Res	495	0.015	0.45	0.255	7.637	30.20	98.83
Calc.Head	500	0.049	0.45				
HeadAssay		0.040	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		3.00		12.2
4 hrs.	1000					
8 hrs.	1000					
24 hrs.	1320	1.40	0.31	0.50	4.73	11.5
48 hrs.						
72 hrs.						

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 4

PROJECT No: M-175

FEED: YM - 2 (145-150)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)		CONTENT (mg)		DISTRIBUTION %		DISTRIBUTION %	
SOLUTIONS	gram/ml	Au	Ag	Au		Ag		Au		Ag	
.....	.....	.....	.....	.....		.....		.....		.....	
	1000										
	1000										
	1000										
24 hrs.	1000	0.015	0.00	0.514		0.07		79.59		7.20	
48 hrs.	980	0.015	0.00	0.514		0.07		79.59		7.20	
72 hrs.	1420	0.009	0.00	0.459		0.10		70.99		10.51	
Leach Res	497	0.011	0.05	0.187		0.852		29.01		89.49	
Calc.Head	500	0.038	0.06								
HeadAssay		0.049	<0.05								

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		12.0
4 hrs.	1000					11.9
8 hrs.	1000					11.2
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1420	1.18	0.65	0.10	3.74	10.8

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/19/89

TEST No.: 5

PROJECT No: M-175

FEED: YM - 5 (290-295)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.024	0.00	0.823	0.07	76.97	7.35
48 hrs.	980	0.022	0.00	0.756	0.07	70.69	7.35
72 hrs.	1470	0.014	0.00	0.737	0.10	68.95	11.09
Leach Res	484	0.020	0.05	0.332	0.830	31.05	88.91
Calc.Head	500	0.062	0.05				
HeadAssay		0.052	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		11.5
4 hrs.	1000					11.5
8 hrs.	1000					11.3
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1470	1.18	0.55	0.12	3.77	10.8

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/19/89

TEST No.: 6

PROJECT No: M-175

FEED: YM - 8 (230-235)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.021	0.02	0.720	0.51	85.09	20.98
48 hrs.	980	0.021	0.02	0.720	0.68	85.09	27.83
72 hrs.	1420	0.014	0.02	0.710	0.75	83.95	30.77
Leach Res	495	0.008	0.10	0.136	1.697	16.05	69.23
Calc.Head	500	0.049	0.14				
HeadAssay		0.040	(0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		11.5
4 hrs.	1000					11.5
8 hrs.	1000					11.3
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1420	1.18	0.66	0.12	3.70	10.8

May 24th, 1989
JDS

NORGOLD RESOURCES INC.

13935 Chamy Drive
Reno, Nevada 89511

Re: Agreement between Al Roman and Mariposa County is enclosed as recorded in Mariposa County Courthouse.

Also: M. Philpot and T. Page reviewed and inspected the alternative tower site with Tom DeVries ~~and~~ of Santa Fe and Joe DeRoulhac of Mariposa County. Generally positive reactions were given, but final word awaits "shooting" (ie. mirror or laser reflection surveys) by both parties. Will proceed with land acquisition option following positive outcome.

Sincerely,

Tench C. Page
Exploration Manager

ASARCO Incorporated
MAY 26 1989
SW Exploration

2380 Harbour Centre, P.O. Box 12122, 555 W. Hastings Street, Vancouver, B.C. V6B-4N6
(604) 681-5566

cc: M. Miller, J. Sell, W. Kurtz

STATE OF ARIZONA, County of Yavapai ss. 39573 TRANSAMERICA TITLE INSURANCE CO.

I do hereby certify that the within instrument was filed and recorded at the request of

on DEC 3 1979 2:00 PM o'clock, in Book 1265 Official Records Page 697-698-699

Records of Yavapai County, Arizona. WITNESS my hand and official seal the day and year first above written.

PATSY C. JENNEY, County Recorder

Dorothy J. Clupper Deputy

When recorded, return to:

Maricopa County Board of Supervisors

Maricopa County Engineer

WITNESS my hand and official seal SEP 31

County Recorder

Deputy Recorder

Recorded at Request of Board of Supervisors.

Compared

Photostat

Fee:

Project #75322, Yarnell Comm. Site

Warranty Deed

Know All Men By These Presents:

That Alvin J. Roman, a single man and Katherine Gooding, a single woman

GRANTOR

of MARICOPA COUNTY, STATE OF ARIZONA, for and in consideration of the sum of Ten and no/100 ($10.00) DOLLARS, and other valuable considerations to them in hand paid by MARICOPA COUNTY, a political subdivision of the STATE OF ARIZONA, GRANTEE herein, he ~~ve~~ granted, sold and conveyed and by these presents do grant, sell and convey unto the said GRANTEE all that certain real property situated in the County of Yavapai, State of Arizona, described as follows:

See attached Exhibit "A" for legal description.

MARICOPA COUNTY 1979 DEC 7 PM 1:09 HIGHWAY DEPT.

TO HAVE AND TO HOLD the above described property, together with all and singular the rights and appurtenances thereto in any wise belonging unto the said GRANTEE, its successors and assigns forever, and the GRANTOR hereby binds their heirs, executors and administrators to warrant and defend, all and singular the said property unto the said GRANTEE, against every person whomsoever, lawfully claiming or to claim the same or any part thereof.

DATED this 24th day of September, 1979

Alvin J. Roman

Katherine Gooding

STATE OF ARIZONA
County of Maricopa } ss.

This instrument was acknowledged before me this 24th day of September, 1979 by Alvin J. Roman and Katherine Gooding

Mary Alice Hauck Notary Public

My Commission Expires: MARY ALICE HAUCK, NOTARY PUBLIC, AMITY TOWNSHIP, BERKS COUNTY MY COMMISSION EXPIRES AUG. 3, 1981 Member, Pennsylvania Association of Notaries

Recommended for approval: Bert Bergeron Right-of-way Agent

Deputy County Engineer

ACCEPTED: MARICOPA COUNTY BOARD OF SUPERVISORS

Chairman of the Board

ATTEST:

Clerk of the Board

Date DEC 3 1979

BOOK 1265 PAGE 697

EXHIBIT "A"

Proposed Communication Site
at Yarnell, Arizona

W.O. #75322

Legal Description

That portion of the JUNIPER LODE MINING CLAIM, M.S. No. 1112 as shown in Book 36 of Deeds, pages 229, 230, 231 & 232, Yavapai County Records, Arizona and which is also shown on the plat attached hereto and made a part of this description, described as follows: BEGINNING at the Northeasterly end of the Northwesterly side line of the parcel of land conveyed to the California, Arizona and Santa Fe Railway Company more particularly described as Beginning at Corner No. 1 of said JUNIPER claim; thence North 44°30' West along the 1-5 line of said claim 237.56 feet to the actual point of beginning for the description of the herein described tract; thence continuing along said 1-5 line, 150.0 feet; thence North 44°30' East parallel with the 5-4 line of said claim, 500.0 feet; thence South 44°30' East parallel with said 1-5 line, 150.0 feet; thence South 44°30' West parallel with said 5-4 line to the actual point of beginning, in Book 235 of Deeds, page 8, Yavapai County Records, Arizona;

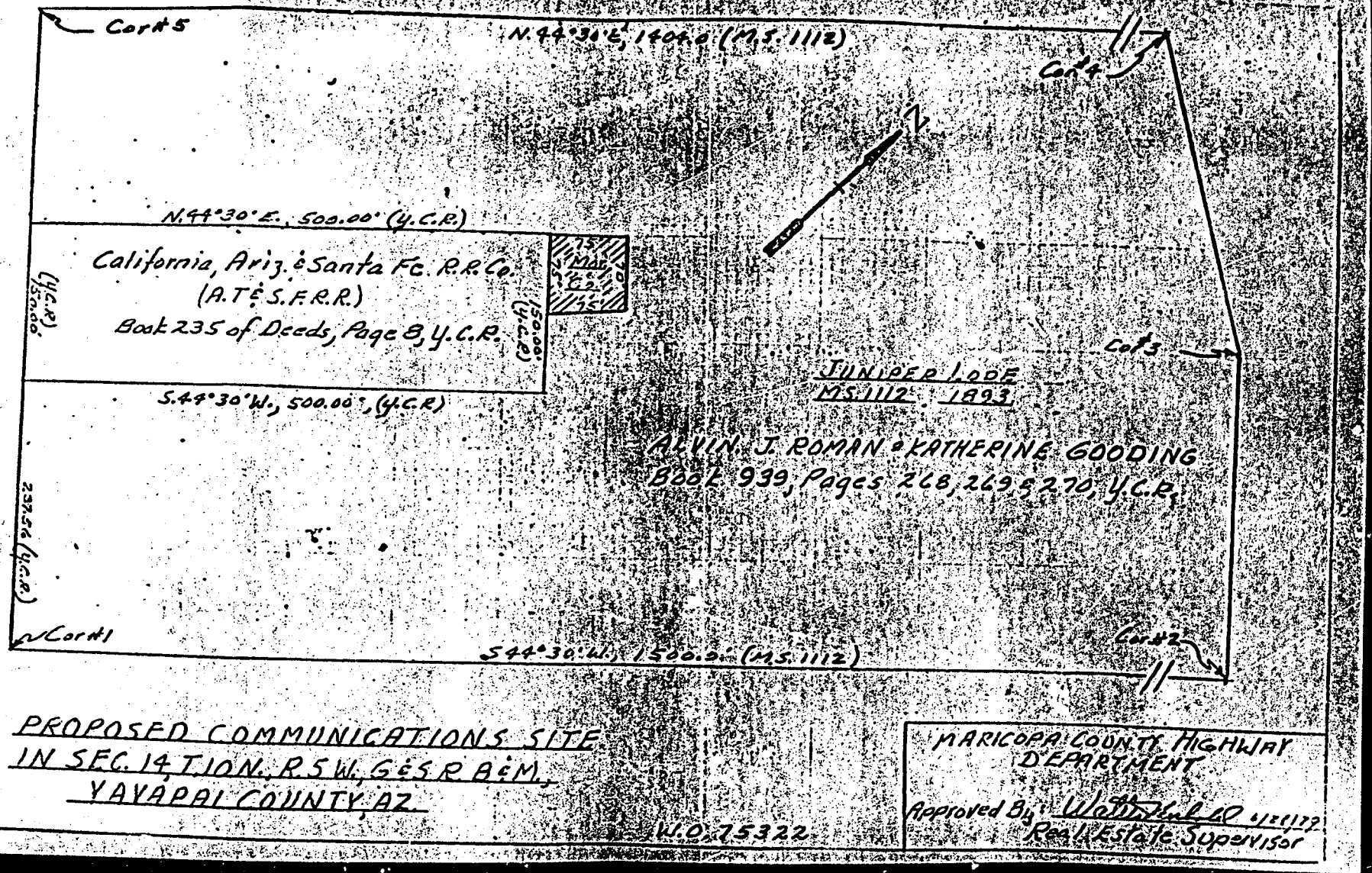
M.C.R.A.
Processed
ABB
dc
7/25/74
Compared
7/25/74
Approved
7/25/74
Entered
7/25/74

THENCE North 44°30' East, 75 feet along the Northeasterly prolongation of the Northwesterly side line of said C.A. & S.F.R. Co. parcel; thence South 44°30' East 70 feet along a line parallel with the Northeasterly end line of said C.A. & S.F.R. Co. parcel; thence in a Southwesterly direction to a point on said Northeasterly end line that is South 44°30' East, 75 feet from the Point of Beginning for the herein described parcel of land; thence North 44°30' West, 75 feet along the Northeasterly end line of said C.A. & S.F. R. Co. parcel to said Point of Beginning.

ALSO, an easement for ingress and egress over an existing road from U. S. Highway No. 89 to the above described tract. Said easement for roadway purposes crosses the EDMOND, the TRIANGLE and the JUNIPER Lode Mining Claims designated by the Surveyor General as Survey Nos. 1114, 1115 and 1112, respectively, and lying 6.0 feet on each side of the following described centerline: BEGINNING at the West quarter corner of Section Fourteen(14), Township Ten(10) North, Range Five(5) West of the Gila and Salt River Base and Meridian; thence North along the West line thereof 33.63 feet; thence South 84°44' East, 426.95 feet; thence South 35°19'30" East 405.0 feet to point No. 1, the actual Point of Beginning for the aforesaid center line; thence South 03°47' West 492.0 feet to angle point No. 2; thence South 34°37'30" West 149.0 feet to angle point No. 3; thence South 74°02'30" East 530.0 feet to angle point No. 4; thence North 25°57'30" West 252.0 feet to angle point No. 5; thence North 32°23'30" East 90.0 feet to angle point No. 6; thence South 69°15'30" East 290.0 feet to angle point No. 7; thence North 38°09'30" East 95.92 feet to angle point No. 8; thence North 9°29'30" West 139.0 feet to angle point No. 9; thence South 67°38'30" East 475.0 feet to angle point No. 10; thence South 01°02' West 260.0 feet to angle point No. 11; thence South 16°13' West 87.0 feet to angle point No. 12; thence South 49°41' West, 280.0 feet to angle point No. 13; thence South 83°53' West 185.0 feet to angle point No. 14; thence along an irregular curve to the right to the aforesaid angle point No. 7, said curve passing through a point 60 feet Westerly from the Microwave site, which site bears South 07°31' East 375.0 feet from said angle point No. 7 as described in said Book 235 of Deeds, Page 8, Y.C.R.

AND ALSO, an easement for ingress and egress over and across that portion of the Juniper Lode Mining Claim, M.S. 1112, lying between the Northwesterly side line of the herein described proposed Communications Site and that portion of said irregular curve between point No. 14 and angle point No. 7 lying Northerly of the Northwesterly side line of the California, Arizona and Santa Fe Railway Company parcel.

Except all coal, oil, gas and other mineral deposits in said land as reserved unto the Grantor.



PROPOSED COMMUNICATIONS SITE
IN SEC. 14, T.10N., R.5W., G&S.R. B&M.,
YAVAPAI COUNTY, AZ

W.O. 75322

MARICOPA COUNTY HIGHWAY DEPARTMENT
Approved By: [illegible] 6/28/79
Real Estate Supervisor

BOOK 1265 PAGE 699

STATE OF ARIZONA, County of Yavapai } 39574

I do hereby certify that the within instrument was filed and recorded at the request of TRANSAMERICA TITLE INSURANCE CO.

on DEC 13 79 2:00 PM o'clock — Book 1265 Official Records Page 760-703 (incl)

Records of Yavapai County, Arizona. WITNESS my hand and official seal the day and year first above written.

PATSY C. JENNEY, COUNTY RECORDER

By Dorothy J. Clupper, Deputy

WITNESS my hand and official seal the day and year aforesaid.

Fee: 3.

County Recorder By Deputy Recorder

When recorded return to: MARICOPA COUNTY BOARD OF SUPERVISORS

Recorded at Request of Board of Supervisors

GRANT OF EASEMENT

Project # 75322, Yarnell Comm. Site

Item # (Communications Bldg. & Tower)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, WESTERN BUILDING and MINING, INC., an Arizona Corporation, has an interest in the below described real property;

AND WHEREAS, there has been granted to MARICOPA COUNTY, a political subdivision of the State of Arizona, across a portion of the lands described in said instrument, a permanent easement and right-of-way, dated _____, for the purpose of the construction and maintenance of ingress and egress and all incidents thereto, over and across the following described land:

(See attached EXHIBIT "A" for legal description)

NOW, THEREFORE, WESTERN BUILDING and MINING, INC., an Arizona Corporation hereby grants to said Maricopa County said easement and right-of-way across that portion of the property owned by it, and agrees that any sale, made under the provisions of said instrument, shall be subject thereto.

Dated this 24th day of September, 1979.

WESTERN BUILDING and MINING, INC.

By: [signature]
PRESIDENT

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

Subscribed and sworn to before me this 24 day of September, 1979.

My commission expires MARY ALICE HATCH, NOTARY PUBLIC, Lycoming County, Pennsylvania. My Commission Expires April 1, 1981. Member, Pennsylvania Association of Notaries

[signature] SEAL
(Notary Public)

Recommended for approval [signature]
Right-of-Way Agent

[signature]
Deputy County Engineer

ACCEPTED:
MARICOPA COUNTY BOARD OF SUPERVISORS

By: [signature]
Chairman of the Board

ATTEST: [signature]
Clerk of the Board

Date: DEC 3 1979

BOOK 1265 PAGE 700

STATE OF ~~ARIZONA~~ PENNSYLVANIA

County of Berks } ss.

Before me, Mary Alice Hauck, Notary Public in and for said County, State of Arizona, on this day personally appeared ALVIN J. ROMAN known to me to be the person whose name IS subscribed to the foregoing instrument as PRESIDENT of the Corporation described in the foregoing instrument, and as such HE acknowledged to me that HE executed the same for said Corporation, for the purpose and consideration therein expressed, as its free act and deed and by each of them voluntarily executed.

Given under my hand and seal of office, this 16th day of October A.D., 19 79

MARY ALICE HAUCK, NOTARY PUBLIC
AMITY TOWNSHIP, BERKS COUNTY
MY COMMISSION EXPIRES AUG. 3, 1981
Member, Pennsylvania Association of Notaries

Mary Alice Hauck
Notary Public

My Commission Expires

BOOK 1265 PAGE 701

STATE OF ARIZONA, County of Yavapai 39575

I do hereby certify that the within instrument was filed and recorded at the request of TRANSAMERICA TITLE INSURANCE CO.

on DEC 13 79-2 00 PM o'clock Book 1265 Official Records Page 704-705

Records of Yavapai County, Arizona. WITNESS my hand and official seal the day and year first above written.

PATSY JENNEY, County Recorder

By Dorothy Clupper Deputy

Fee: 3-

Recorded at Request of Board of Supervisors.

WITNESS my hand and official seal the day and year aforesaid. Records of Yavapai County, Arizona.

County Recorder By Deputy Recorder

When recorded return to: MARICOPA COUNTY BOARD OF SUPERVISORS

CONSENT TO EASEMENT

Project # 75322, Yarnell Comm. Site

Item # (Communications Bldg. & Tower)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, James R. Deabler and Joyce N. Deabler, his wife

, has an interest in the below described real property, such interest being evidenced by a certain instrument dated April 16, 1979 and recorded in Book 1216 of official records at page 390, 391, 392, Records of Yavapai County, Arizona; and recorded May 16, 1979.

AND WHEREAS, there has been granted to MARICOPA COUNTY, a political subdivision of the State of Arizona, across the lands described in said instrument, a permanent easement and right-of-way, dated , for the purpose of the construction and maintenance of ingress and egress and all incidents thereto, over and across the following described land:

(See attached EXHIBIT "A" for legal description)

NOW, THEREFORE, James R. Deabler and Joyce N. Deabler, his wife hereby consents to the grant of said easement and right-of-way and agrees that any sales made under the provisions of said instrument, shall be subject thereto.

Dated this 14th day of November, 1979.

James R. Deabler

Joyce N. Deabler

STATE OF ~~ARIZONA~~ Oregon)
Coos) ss.
COUNTY OF ~~MARICOPA~~)

Subscribed and sworn to before me this 14 day of November, 1979.

My commission expires 11-13-82 Bailee Steickland (Notary Public) SEAL

Recommended for approval Bert Bergman Right-of-Way Agent Deputy County Engineer

ACCEPTED: MARICOPA COUNTY BOARD OF SUPERVISORS

By: Chairman of the Board

ATTEST: Clerk of the Board

Date: DEC 3 1979

MARICOPA COUNTY HIGHWAY DEPT. 1979 DEC 7 8:49

MARICOPA COUNTY HIGHWAY DEPT. 1979 OCT 19 PM 3:33

Mark 5/24 to check on who-why-what of these people & the tower site

JDS

5/25/89

FROM: J. D. SELL

TO: M A Miller:

In regard to having Rasmussen fill in for you during your vacation time, I think he will be busy & should not be considered.

Steve should be trained in the day to day activities + can probably hold down your fort until you return.

Jim

cc: JD Rasmussen

FILE

ASARCO

Southwestern Exploration Division

May 23, 1989

J.D. Sell

Summer Vacation

As I discussed with you, I am planning to be on vacation from July 7 to 21. I have asked Jim Rasmussen as to the possibility of filling in for me during my absence, and he has tentatively agreed to do so with your permission. We should be nearing the end of the drilling program at this time.

MAM:mek

Mark A. Miller

cc: J.D. Rasmussen

JDS FILE

Yarnell Project

ASARCO

CONFIRMATION LETTER

Exploration Department
R. L. Brown
Vice President

May 25, 1989

VIA TELECOPIER

Mr. J. D. Sell
Tucson Office

Yarnell Project
Arizona

Dear Mr. Sell:

This will confirm that I asked Mark Miller to stake as soon as possible 8 or 10 claims in the southeast corner of Section 15 if the ground is open. Please confirm in writing when this staking has been done.

Yours very truly,

R. L. Brown/mc

R. L. Brown

RLB:mc

ASARCO Incorporated

MAY 30 1989

SW Exploration

JDS FILE

ASARCO

Exploration Department
R. L. Brown
Vice President

MAY
~~April~~ 25, 1989

VIA TELECOPIER

Mr. J. D. Sell
Tucson Office

Yarnell Project
Arizona

Dear Mr. Sell:

This will confirm that I asked Mark Miller to stake as soon as possible 8 or 10 claims in the southeast corner of Section 15 if the ground is open. Please confirm in writing when this staking has been done.

Yours very truly,

R. L. Brown/mc

R. L. Brown

RLB:mc

Copy for MA Miller — please comply.
JDS
5/25/89

ASARCO Incorporated
MAY 25 1989
SW Exploration

ASARCO

Southwestern Exploration Division

Via FAX

May 25, 1989

R.L. Brown
New York Office

Payment & Royalty Schedule
Yarnell Project

The attached schedule shows the payments and royalties to be made on the Yarnell Project property options beginning on June 1, 1989 to December 31, 1994. The individual (total amounts) will change depending on when Yarnell goes into production. If the advance royalties are taken to completion, total payout will be $759,500* over 5½ years.

* Excluding the Norgold Payment.

Mark A. Miller

MAM:mek
Att.

cc: J.D. Sell
W.L. Kurtz
S.A. Anzalone
D.F. Skidmore

ASARCO

Southwestern Exploration Division

Via FAX

May 25, 1989

R.L. Brown
New York Office

Payment & Royalty Schedule
Yarnell Project

The attached schedule shows the payments and royalties to be made on the Yarnell Project property options beginning on June 1, 1989 to December 31, 1994. The individual (total amounts) will change depending on when Yarnell goes into production. If the advance royalties are taken to completion, total payout will be $800,000* over 5½ years.

* Excluding the Norgold Payment.

Mark A. Miller

MAM:mek
Att.

cc: J.D. Sell
W.L. Kurtz
S.A. Anzalone
D.F. Skidmore

PAYMENT & ROYALTY SCHEDULE

YARNELL PROJECT

Payment Schedule beginning June 1, 1989.

Year	(Pat. & Unpat.) Roman	(Unpat.) Layton	(Patented) Heintzelman	Sub Total	Norgold	Total
1989	$ 7,000	$ 10,000	$ 15,000	$ 32,000	$ 30,000	$ 62,000
1990	100,000	15,000	12,500	127,500	40,000	167,500
1991	100,000	25,000	12,500	137,500	50,000	187,500
1992	100,000	40,000	12,500	152,500	25,000*	177,500
1993	150,000	60,000	--	210,000	25,000*	235,000
1994	--	100,000	--	100,000	25,000*	125,000
	$457,000	$250,000	$ 52,500	$759,500	$195,000	$954,500

*To be paid if Asarco has not begun development on property.

Royalty (NSR in %)

Al Roman	Layton	Heintzelman
2% year 0-2 1% year 3-4 .5% ad infinitum Payments not to exceed $175,000/yr.	1% or Advance Royalty (Greater of the two)	None

ASARCO

JDS FILE

Yarnell Inc

Exploration Department
R. L. Brown
Vice President

May 26, 1989

ASARCO Incorporated
MAY 30 1989
SW Exploration

Mr. W. L. Kurtz
Tucson Office

Dear Mr. Kurtz:

As you know I took advantage of an unexpected opening in my schedule to visit Yarnell last Wednesday. Obviously, I was pleased with the progress we have made there, and I am anxious to move the work along. If the tonnage and grade survive the proposed next round of drilling (and I can think of no reason why they should not), we should be talking about feasibility and engineering studies in the early Fall. As we look forward to ore reserve calculation, economic studies, and possible inflammatory Norgold press releases, I think we should move quickly in the following-listed areas:

1) I think we should place on record discoveries on the unpatented mining claims within the ultimate pit outline. We may or may not have to apply for patents, but we will in any case wish to cover ourselves against claim jumpers. In connection with this, I told Mark Miller to carry on with his detailed mapping and surface sampling, and in particular, to plot the location of claim corners, midcenters and discovery posts of each claim in his 200 scale map area. When we know how the unpatented claims within the ultimate pit outline area sit, we will determine what drilling and what outcrop information will be required to achieve discovery on each claim.

As I faxed to Mr. Sell yesterday I think it is very important that we stake the southeast 1/4 of Section 15 if that ground is in fact open for staking.

If the portion of Section 22 which we already do not own is open for lease, we should secure such a lease from the State of Arizona. I think that we should quickly make reconnaissance traverses across the west half of Section 13, southwest 1/4 of Section 12, and southeast 1/4 of Section 11 in a search for alteration. If such alteration is found, the appropriate staking should be done in these areas.

It would appear that Mark Miller will have the next ten days or two weeks available to him before drilling starts. I believe he should use this time to improve his outcrop map, making particular efforts to identify alteration trends, and to pick up remaining outcrops in the map area. He could do other things to improve his map as well; one thing he can do is to put the horizontal projection of the underground workings on his map, possibly in dashed or dotted lines. I understand that Bill Gay is surveying in the area over this weekend, and I would suggest that Bill pick up as many of the adits, claim posts, USGS benchmarks and so on as he can in addition to the drill holes he has currently planning on picking up. Please move immediately to get aerial photography in the area which could later be used to produce a topographic map. This map can be blown up to 200 scale and should be very useful to Miller in his mapping and in other work in the area. We will need a topographic map before serious ore reserve calculation and economic studies can be done. We did not have such a map at Camp Douglas and that experience tells me we will need one soon at Yarnell.

The area to be photographed is reasonably small, but we should probably have photography over those parts of Sections 10, 11, 12, 13, 25, 26 and 27 which abut the Yarnell property.

Miller appears not to have any summer help, and it probably would be necessary to do much of the work needed to be done at Yarnell sequentially, rather than in tandem. I would suggest, therefore, that we start diamond drilling soon after we get the Yarnell agreement signed, and follow this diamond drilling with reverse circulation drilling. We will discuss this on the phone early next week.

Yours very truly,

R. L. Brown

RLB:mc

cc: J. D. Sell
M. A. Miller

JDS

FROM: W. L. KURTZ

TO: ~~FDSell~~

See May 26
WLK
Comm
RL Brown

Your problems

I have no issue with any of this EXCEPT I would not diamond drill first.

1. The RC drill w/ Drilling Services is NOT available after June 1.
2. Pete V. says Eckland NOT available, but has got to show up on midcoast hole that PEN on June 1. Perhaps Hathcock, Echo is available.
3. Mark M. has contacted Longyear in Phoenix & will talk w/ Joy in Tucson as to availability of core rigs — no response as yet.
4. Thus core rig may be 1st available!

ASARCO Incorporated

MAY 30 1989

SW Exploration

5-30-89

Memo. To J. Dsell.

DSC Rig Availability

DSC (Drilling Services Company) will be ready to drill on June 1, 1989. Cost/ft will be $7.00/ft for R.C. drilling if they drill the entire 10,000'. Otherwise cost will be $7.95/ft. Advantages to using DSC are rapid availability of parts & service as the main shop is located in Chandler, approx ~100 miles from Yarnell.

With regard to R.L. Brooks request for staking the SE 1/4 of Sec 15, Y-6 & Y-7 already cover the SE 1/4, SE 1/4 Sec 15. And the rest of the quarter is being staked.

Mark Miller.

cc: WEK

The attached documentation explains the reason for the consent of easment. Apparently Rowan granted easment then the Cigar & Gomind claim + Sumpter Claim I do not know what the significance if any this means.

JDS

MAY-31-89 WED 9:34 PRESCOTT AZ P.01

TELECOMMUNICATIONS COVER SHEET

PRESCOTT FACSIMILE SERVICE
C/O PRESCOTT GRAPHICS CENTER
224 W. Gurley
Prescott, AZ 86301

Telephone : (602) 778-5200
Fax Phone: (602) 778-4895

Date: _____

TO: J.D Secu

FROM: Mark Miller

TELEPHONE: 1-792-3934

TELEPHONE: _____

TOTAL PAGES TRANSMITTING (INCLUDING COVER SHEET): _____

SPECIAL INSTRUCTIONS: I HAVE RESEARCHED THE MORGAGE AND (1216 390-392) ACCORDING TO THE RECORDS IT HAS NOT YET BEEN PAID

If there is a problem with transmittal, please call the operator listed below at (602) 778-5200.

OPERATOR: _____

STATE OF ARIZONA, County of Yavapai— 14002
I do hereby certify that the within instrument was filed and recorded at the request of James Deabler
on MAY 16 '79 - 9 10 AM o'clock — Book 1216 Official Records Page 388-389
Records of Yavapai County, Arizona. WITNESS my hand and official seal the day and year first above written.

PATSY JENNEY, County Recorder
By ..... Deputy

RR 571
~~Expires~~
Yarnell 85362

Warranty Deed

For the consideration of Ten Dollars, and other valuable considerations, I or we,

JAMES R. DEABLER and JOYCE N. DEABLER, his wife

do hereby convey to

WESTERN BUILDING AND MINING, INC., an Arizona corporation

the following real property situated in Yavapai County, Arizona:

SEE SCHEDULE "A" ATTACHED

AND all of my right, title and interest in and to that certain Well and wellsite located on the EDMOND LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1114, United States patent whereof is recorded in Book 36 of Deeds, pages 236-240, in the office of the County Recorder of Yavapai County, Arizona.

Subject to current taxes and assessments, patent reservations and exceptions, and all easements, rights of way, covenants, conditions, restrictions, liens and encumbrances of record.

And I or we do warrant the title against all persons whomsoever subject to the matters above set forth.

Dated this 18th day of April, 1979.

James R. Deabler

Joyce N. Deabler

STATE OF ARIZONA
COUNTY OF Yavapai } ss.

On this the 23rd day of April, 1979 before me, ... the undersigned officer, personally appeared JAMES DEABLER known to me (or satisfactorily proven) to be the person whose name subscribed to the within instrument and acknowledged that they executed the same for the purpose therein contained.

My Commission will expire
My Commission Expires Apr 11, 1981

Notary Public

STATE OF ~~ARIZONA~~ CALIFORNIA
COUNTY OF Cross Bay } ss.

On this the 23 day of April, 1979 before me, Rae Lee Stinnett the undersigned officer, personally appeared JAMES DEABLER known to me (or satisfactorily proven) to be the person whose name subscribed to the within instrument and acknowledged that she executed the same for the purpose therein contained.

My Commission will expire
11-13-82

Notary Public

YAVAPAI TITLE

BOOK 1216 PAGE 389

SCHEDULE "A"

PARCEL NO. 1:

TRIANGLE LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1115, United States patent whereof is recorded in Book 36 of Deeds, at pages 233-236, in the office of the County Recorder of Yavapai County, Arizona, ALL in the WEAVER mining district, Yavapai County, Arizona.

RESERVING unto Seller, his heirs or assigns an easement for right of way 30 feet in width from Corner #1 of the Edmond claim along the South boundary of the Triangle Claim to Corner #3 of Edgar claim, and

RESERVING unto Seller, his heirs or assigns, the right to extend existing water lines across Triangle claim.

PARCEL NO. 2:

EDMOND LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1114, United States Patent whereof is recorded in Book 36 of Deeds, pages 236-240, in the office of the County Recorder of Yavapai County, Arizona;

RESERVING UNTO THE SELLER an easement over the existing roadway located near Corner No. 4 of Edmond Claim which leads toward the Edgar and Mother lode claims, and

RESERVING UNTO THE SELLER an easement for the existing water lines across the Edmond Claim and at the time of extension of the water lines, Seller and Buyer shall agree on the location and shall become a permanent extension of this said easement.

BOOK 1216 PAGE 389

Don't leave until Prescott

1265
697-699

387 →
388-

ATT Jim Sell

PARCEL NO. 1: SCHEDULE "A"

TRIANGLE LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1115, United States patent whereof is recorded in Book 36 of Deeds, at pages 233-236, in the office of the County Recorder of Yavapai County, Arizona, ALL in the WEAVER mining district, Yavapai County, Arizona.

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STATE OF ARIZONA, County of Yavapai—ss **14903**

I do hereby certify that the within instrument was filed and recorded at the request of James Deabler on MAY 16 '79 -9 10 AM o'clock — Book 1216 Official Records Page 390-393 (incl) Records of Yavapai County, Arizona. WITNESS my hand and official seal the day and year first above written.

PATRICK J. ROONEY, County Recorder

By [signature] Deputy

When recorded, mail to:

Realty Mortgage

(Joint Tenancy)

KNOW ALL MEN, That WESTERN BUILDING AND MINING, INC., an Arizona Corporation

of Yavapai County, Arizona, hereinafter referred to as MORTGAGOR, in consideration of

FIFTY-FIVE THOUSAND AND NO/100 - - - - - - - - - - - - - - DOLLARS, in hand paid by

JAMES R. DEABLER and JOYCE M. DEABLER, his wife

hereinafter referred to as MORTGAGEES, the receipt whereof is hereby acknowledged, does hereby grant, bargain, sell and convey to MORTGAGEES, not as tenants in common, not as a community property estate, but as joint tenants with right of survivorship, the following real estate, lying and being in the County of Yavapai, State of Arizona, known and described as

PARCEL No. 1:
TRIANGLE LODE MINING CLAIM, designated by the Surveyor General As Lot No. 1115, United States patent whereof is recorded in Book 36 of Deeds, at pages 233-236, in the office of the County Recorder of Yavapai County, Arizona, ALL in the WEAVER district, Yavapai County, Arizona.

RESERVING unto Seller, his heirs or assigns an easement for right of way 30 feet in width from Corner #1 of the Edmond claim along the South boundary of the Triangle Claim to Corner #3 of Edgar Claim, and RESERVING unto Seller, his heirs or assigns, the right to extend existing water lines across Triangle claim.

PARCEL NO. 2:
EDMOND LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1114, United States Patent whereof is recorded in Book 36 of Deeds, pages 236-240, in the office of the County Recorder of Yavapai County, Arizona;

RESERVING UNTO THE SELLER an easement over the existing roadway located near Corner No. 4 of Edmond claim which leads toward the Edgar and Mother lode claims, and

RESERVING UNTO THE SELLER an easement for the existing water lines across the Edmond Claim and at the time of extension of the water lines, Seller and Buyer shall agree on the location and shall become a permanent extension of this said easement.

Together with: (1) All buildings and improvements now or hereafter placed thereon; (2) all rents, issues and profits thereof; (3) all classes of property now, or at any time hereafter, attached to or used in any way in connection with the use, operation or occupancy of the above described real property; (4) all property, rights and privileges now or hereafter owned by MORTGAGOR or now or hereafter appurtenant to said premises, which entitle MORTGAGOR or said premises to receive water or electrical power for use thereon. All of the foregoing shall be deemed to be, remain and form part of the property and subject to the lien of this mortgage.

BOOK 1216 PAGE 390

TO HAVE AND TO HOLD the same to MORTGAGEES or their assigns, and to the survivor of the MORTGAGEES and to the heirs, executors, administrators or assigns of such survivor forever.

MORTGAGOR hereby covenants and warrants that MORTGAGOR is well and truly seized of a good and perfect title to the premises above conveyed in fee simple and has good right and lawful authority to convey the same, and that the title so conveyed is clear, free and unencumbered and that MORTGAGOR will forever warrant and defend the same to MORTGAGEES as joint tenants against all claims whatsoever.

PROVIDED, ALWAYS, and these presents are upon the express conditions, that if MORTGAGOR shall: (1) Pay to MORTGAGEES, the just and full sum of (355,000.00) THIRTY-FIVE THOUSAND AND NO/100 Dollars, with interest thereon, according to the terms and conditions of 1981 certain promissory note, bearing even date herewith,

Ck. endorsed over to Lender May 31 See May 31 9:34 AM Made by WATKINS

executed by MORTGAGOR and payable to the order of MORTGAGEES; (2) pay to the proper officers before delinquency, all taxes and assessments, general or special, and all general or special assessments, charges, or taxes for irrigation water, power or appurtenant water stock, which shall be charged, levied or assessed upon said real estate; (3) pay when due all encumbrances, adverse claims, charges and liens on said property or any part thereof, which may have or acquire priority to or impair the security of this mortgage; and (4), insure and keep all improvements on said premises insured for the protection of MORTGAGEES in such manner, in such amounts and in such companies as MORTGAGEES may approve, and pay the premiums for said insurance, and keep the policies therefor, properly endorsed, on deposit with MORTGAGEES, it being understood and agreed that each insurance company concerned is hereby authorized and directed to make payment for such loss directly to MORTGAGEES and that such loss proceeds shall, at MORTGAGEES' option, be applied on said indebtedness, whether due or not, or to the restoration of said improvements; then these presents shall be null and void.

In case of the non-payment of any sum of money, either principal, interest, taxes, assessments, dues or assessments for irrigation water or appurtenant water stock, power bills, adverse claims, encumbrances, charges or liens, or premiums of insurance, at the time or times herein provided for such payments, or upon the failure of MORTGAGOR to insure the buildings upon said premises and keep the policies assigned or made payable to MORTGAGEES, and deliver the said policies to MORTGAGEES, all as provided by the conditions of these presents, or of the aforesaid promissory note, or in case of the failure of MORTGAGOR to keep or perform any other agreement, stipulation or condition herein contained, then the whole principal sum of said note, at the option of MORTGAGEES, shall be deemed to have become due, and the same, with interest thereon at the rate contracted, shall thereupon be collectible in a suit at law or by foreclosure of this mortgage, in the same manner as if the whole of said principal sum had been made payable at the time when any such failure shall occur, as aforesaid.

MORTGAGOR further covenants and agrees, that in case of failure on the part of MORTGAGOR to pay any of said taxes, assessments, dues or assessments for irrigation water or appurtenant water stock, power bills, adverse claims, encumbrances, charges or liens, or premiums of insurance, as above provided, MORTGAGEES may pay the same, and the amount so paid, together with interest thereon at the rate of eight per cent per annum shall become a part of the debt secured by this mortgage and a lien on said premises immediately due and payable at the option of MORTGAGEES.

MORTGAGOR also covenants and agrees with MORTGAGEES that MORTGAGOR will, during the terms of this mortgage, neither permit any commit waste on said premises and, if the mortgaged

premises are now or hereafter used as farm lands, will purchase and use thereon the amount of water necessary to preserve and protect any water rights to which said premises are or shall be entitled, and keep said premises in continuous cultivation and carefully irrigate the same; and will take the same care thereof that a prudent owner would take, and in any action to foreclose this mortgage a receiver shall, upon application of the plaintiff in such action and without notice to the defendants, be appointed by the Court to take charge of said property, to manage, carry on, protect, preserve and repair the same and receive and collect all the rents, issues and profits thereof, and apply the same to the payment of sums spent to protect, preserve and repair said property, the payment of taxes and other charges, including his own compensation, and to the payment of said note___ and interest, which may be due or become due during the pendency of the action until sale be finally made and deed made and delivered thereunder; and in case of such foreclosure MORTGAGOR will pay to MORTGAGEES in addition to the taxable costs of the foreclosure suit, a reasonable amount as an attorney's fee, together with a reasonable fee for time spent in preparation and conduct of such suit, all of which shall be a lien on said premises and secured by this mortgage; and, in case of settlement after suit is brought but before trial, MORTGAGOR agrees to pay a reasonable attorney's fee, as well as all of the costs of such suit and the costs of the appointment of a receiver, if appointed, and any sums expended by such receiver or MORTGAGEES in the management, carrying on, protection, preservation and repair of said property.

MORTGAGOR and MORTGAGEES further covenant and agree that this instrument shall be construed as covering and securing the indebtedness herein mentioned and any and all additional indebtedness, whether as future advancement or otherwise, together with any renewals or extensions of the said indebtedness herein secured or any advancements and any and all costs of collecting the same.

The covenants and agreements herein contained shall inure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the MORTGAGOR and upon the assigns of the MORTGAGEES, the survivor of the MORTGAGEES, and upon the heirs and assigns of such survivor.

DATED this 13th day of April, 19 79.

[illegible]

[illegible]

STATE OF [illegible]
County of [illegible] } ss.

This instrument was acknowledged before me this 5 day of [illegible], 19 79, by [illegible]

[illegible]

Notary Public

My commission will expire
[illegible]
[illegible] COUNTY
MY COMMISSION EXPIRES [illegible]

(See over for acceptance clause)

STATE OF ARIZONA, County of Yavapai— 30814 TRANSAMERICA TITLE INS. CO

I do hereby certify that the within instrument was filed and recorded at the request of .....

on Nov. 6 A.D., 1974 at 9:30 o'clock A M. Book 939 Official Records

Page 268-269-270 Records of Yavapai County, Arizona.

WITNESS my hand and official seal the day and year first above written.

PATSY C. JENNEY, County Recorder

By Carolyn Young Deputy

When recorded, mail to:
ALVIN J. ROMAN
Box 2224
LeHigh Valley, PA 18001

..... , County Recorder,

By ..... Deputy

4.00

Esc. # 06018659-0 GWC

AGREEMENT

THIS AGREEMENT entered into in triplicate This 14th day of October, 19 74 , between

ROBERT W. BRAUN, a single man

as Seller, and

ALVIN J. ROMAN, a single man, and KATHRYN GOODING, a single woman , as Buyer

WITNESSETH:

That Seller, in consideration of the covenants and agreements of Buyer hereinafter contained, agrees to sell and convey unto Buyer, and Buyer agrees to buy, all that certain real property, together with all and singular the rights and appurtenances thereto in anywise belonging, situate in the County of Yavapai , State of Arizona, described as follows:

as joint tenants with right of survivorship

JUNIPER lode mining claim, designated by the Surveyor General as Lot No. 1112, United States patent thereof is recorded in Book 36 of Deeds, at pages 229-232, in the office of the County Recorder of Yavapai County, Arizona,
EXCEPT that portion deeded to California, Arizona and Santa Fe Railway Company in June 1961 and more particularly described as follows:

BEGINNING at corner No. 1 of said Juniper claim; thence North 44° 30' West along the 1-5 line of said claim 237.56 feet to the actual point of beginning for the description of the herein described tract; thence continuing along said 1-5 line, 150.0 feet; thence North 44° 30' East parallel with said 5-4 line of said claim, 500.00 feet; thence South 44° 30' East parallel with said 1-5 line, 150.0 feet; thence South 44° 30' West parallel with said 5-4 line to the actual point of beginning.

EDGAR lode mining claim, designated by the Surveyor General as Lot No. 1113, United States patent whereof is recorded in Book 36 of Deeds, at pages 240-241, in the office of the County Recorder of Yavapai County, Arizona.

Located in the WEAVER mining district, Yavapai County, Arizona.

RESERVING unto the Seller a 30 foot wide easement for ingress and egress over the existing roadway on the EDGAR lode mining claim.

BOOK 939 PAGE 268

for the sum of THIRTY FOUR THOUSAND TWO HUNDRED FOUR, AND NO/100_____Dollars,
($ 34,204.00) lawful money of the United States, and Buyer agrees in consideration of the premises to pay said sum in the following manner:

To Transamerica Title Company, a corporation at Phoenix, Arizona, for the benefit of the Seller, the sum of $6,440.00 in cash upon the signing and sealing of these presents, the receipt of which is hereby acknowledged, and the balance of $27,763.28 payable in semi-annual installments of $2,480.00 or more, on or before the 15th day of each April and October, beginning April 15, 1975, with interest on all unpaid principal at the rate of 8% per annum, from November 1, 1974, payable semi-annually, the interest to be first deducted from the regular semi-annual installments and the balance to be applied upon principal.

Buyer understands that the premises are subject to the lien of a prior Agreement for Sale, which covers more property, recorded in the records of Yavapai County, Arizona. It is understood and agreed that said prior lien Agreement remains the obligation of the Seller. Seller is to make all payments due under the prior lien Agreement and cause said prior lien Agreement to be paid in full on or before the date Buyer pays the deferred balance due hereunder. Buyer understands that there is no liability on the part of Transamerica Title Insurance Company with regard to the payments on the prior lien Agreement remaining the Seller's obligation.

It is the intention of the Buyers by the use of the wording in this Agreement to create in their favor a joint tenancy with right of survivorship, and not a community property estate or a tenancy in common.

Jim,
I added this part
on to save costs.

JDS

MAY-30-89 TUE 9:31 PRESCOTT AZ P.01

TELECOMMUNICATIONS COVER SHEET

PRESCOTT FACSIMILE SERVICE
C/O PRESCOTT GRAPHICS CENTER
224 W. Gurley
Prescott, AZ 86301

Telephone : (602) 778-5200
Fax Phone: (602) 778-4895

Date: 5-30-89

ASARCO Incorporated
MAY 30 1989
SW Exploration

TO: Tim Sell

FROM: Mark Miller

TELEPHONE: 792-3010

TELEPHONE:

TOTAL PAGES TRANSMITTING (INCLUDING COVER SHEET): 4

SPECIAL INSTRUCTIONS:

If there is a problem with transmittal, please call the operator listed below at (602) 778-5200.

OPERATOR: K

To JDS

Date 5/30 Time 1:15

WHILE YOU WERE OUT

M Mark Miller

of

Phone

Area Code Number Extension

TELEPHONED	✓	PLEASE CALL	✓
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message He going out to lunch - I call him back in about an hour

M

Operator

AMPAD EFFICIENCY®

23-000 50 SHT. PAD
23-001 250 SHT. DISPENSER BOX

1-427-3556

B1245, p. 697, 698, 699 Warranty Deed Sept 24, 1979
recorded Dec. 13, 1979
WB & M Inc conveyed parcel to Mariposa Co for Comm. Site

B1245, p. 700, 701 Grant of Easement Sept. 24, 1979
recorded Dec. 13, '79.
WB & M Inc granted Mariposa Co an ~~easement~~ easement & right of way from Hwy 89 crossing the Edmund, Truesdale & Jungen Lode Mining Claims.

B1265 p. 704 Consent of Easement Nov. 14, 1979
recorded Dec. 13, 1979
from JKD & JN Deeble having any title had an interest in real estate (Book 1216, p. 390-391-392)* recorded May 16, 1979.) — grant Mariposa Co ~~right of~~ easement & right of way as per Exh. A (NOT attached, to copy ~~A~~ was received by T. Page on May 24, '89.)

B1214, p. 390 B 1214, p. 390 ~~-391-392~~ what happened? Realty Mortgage
WBM - mortgagor sold for $55K to JKD & JN Deeble - mortgagees the Truesdale & Edmund lode mining claim.
p. 391 apparently reverses the mortgagor & mortgagee ?!

Agreement (Joint Tenant).

B 831, p. 615 29 March 1973 rec. April 12, 73
R W Braun seller to JR & JN Butler
Buyer — the Edwards Mtg Acres —
& reserving easement & water lines

B 1207, p. 425 29 March 73, recorded April 4 '79
RW Braun Grantor conveys to JRB & JNB ~~joint~~
as JTW/ROS the Edwards Lots. (res easement & water

B 1205, p. 562 Jt Tenancy Deed. 9 Aug 72 rec. March 27, 79
R W Braun Grantor conveys to JRB & JNB
as JTW/ROS to Triangle Lots. (res easement/water

B 775, p. 862 Agreement Aug 9, 72 Rec. Sept 6, 1972
RW Braun seller conveys to JRB & JNB buyer
the Triangle lots.

213/91 Mohave M & M Co Grantor 4 Feb. 61
to 1/2 R Kruger & J Kruger
+ 1/2 T Ridgway & Noble Ridgway } Grantees
the Lode claims
Jennie
Edgar
Edmund
Tuesday
Greenway Spring & Mill Site
Mother Lode.

235/8 29 Sept 61 R & J Kruger convey to
C, A & Santa Fe RR a portion of
the Jennie Lode together w/ easem.

240/103 10 Nov. 61 Disclaimer Deed.
R Kruger to Joe Kruger (spouse)
the following properties.
Jennie, Edgar, Edmund, Tuesday,
Greenway Spring & Mill Site, & Mother Lode.
(Note - This would be only 1/2 as per 213/91)

C·B·C DRILLING
Formerly Joy Contract Drill Division

707 BOYD BOULEVARD / LaPORTE, INDIANA 46350 / PHONE & FAX: (219) 362-2191

May 31, 1989

Mr. Mark Miller
Asarco Inc.
P.O. Box 5747
Tucson, AZ 85703-5747

Dear Mark:

We appreciated receiving the invitation to bid on your core drilling near Yarnell, Arizona.

We understand you have 3-4 NC vertical holes to drill to a depth of 400 feet each for a total of approximately 1200 feet. Water is available within two miles. There is little overburden. The rock is Granite with Fractures.

Please consider the following:

Mobilization	$500.00/rig
Demobilization	$500.00/rig
All Setup, Move and Dismantle	$22.50/man hour
Overburden and/or Full Hole Rock Bit Drilling (two man crew)	$65.00/hour + materials used
<u>Core Drilling</u>	<u>NC Wireline</u>
0 to 500 Feet	$16.90/foot
<u>Rig Time & Hourly Work</u>	
Setting and Pulling Casing and Pipe (two man crew)	$55.00/hour + materials used
Cementing and/or Plugging Drill Holes (two man crew). Includes all time required to maintain good hole conditions while drilling. Also includes time required to close or complete hole as required.	$55.00/hour + materials used

ASARCO Incorporated
JUN 5 1989
SW Exploration

Rig Time & Hourly work (continued)

Cementing and/or Plugging Drill Holes (four man crew)	$55.00/hour + materials used
Reaming, if necessary (two man crew)	$55.00/hour + materials used
Survey (two man crew)	$55.00/hour + Asarco Inc. supplies instrument
Standby Time for Your Convenience	$45.00/hour
Extra Labor if required and authorized by Asarco Inc.	$22.50/man hour
Overtime Premium in Excess of 88 hours per two week period	$5.50/man hour

Supplies

Casing Ordered Left in Place	NC $12.00/foot
Casing Lost through Normal Drilling Operations	70% of List Price
Diamond Bit Loss in Excess of $2.50/foot	At Actual Cost
Drilling Mud and Additives	At Jobsite Cost + 20%
Weather-treated Core Boxes which hold ten feet of core	$3.00/each
Materials Used and Special Purchases authorized by Asarco Inc.	At Cost + 20%

Water Pumping or Hauling

Water Truck Usage	$650.00/month
Mileage	$.50/month
Per Diem	$15.00/man/work day

The above prices are based on our standard non-union wage rates and are firm if accepted within 30 days and will remain in effect until July 25, 1989. Our terms are Net 30 Days on invoices and with approved credit. In the event that payment is not made within this period, a late payment charge of 1½ percent per month, or the maximum amount permitted by law, whichever is less, will be charged, to be computed from the due date to the date payment is received by CBC, together with all costs and expenses incurred in collection, including reasonable Attorney fees and court costs.

We understand Asarco Inc. will build and maintain all-weather or passable access roads, level drill sites, dig mud pits and provide water, on surface, free of cost to CBC Drilling. We further understand that Asarco Inc. will secure and maintain all necessary and required permits and will provide all rights of ingress and egress to all lands that may be required to enable CBC Drilling to carry out the specified work.

We propose doing the work with a truck mounted 22HD and wireline equipment. We will work two shifts per day on a mutually agreeable schedule. You should contact Nino Trujillo to confirm a starting date.

We would look forward to working with you on this project.

Yours very truly,

CBC DRILLING

J. H. Koontz
Vice President &
General Manager

JHK/ts

cc: Mr. James Sell

AGREED TO & ACCEPTED BY:

ASARCO INC.

BY_____

TITLE_____

DATE_____

FROM: W. L. KURTZ 1:50 pm 5/31

TO: JD Sell

In your absence MAM called and asked if he could put Madson on the job — I said yes.

Also agreed he could start on SW in holes (to Yarnell PT) #210 then move to #125 (or 230).

Topo-aerial sounds expensive — you better get 2 or 3 bids.

5/31

MAM sending fax of drill hole locations & first sequence of holes.

② Have you finally decided sequence of drilling? I don't want more than 1-2 NE & SW extension drilled until you locate fault + grad.?

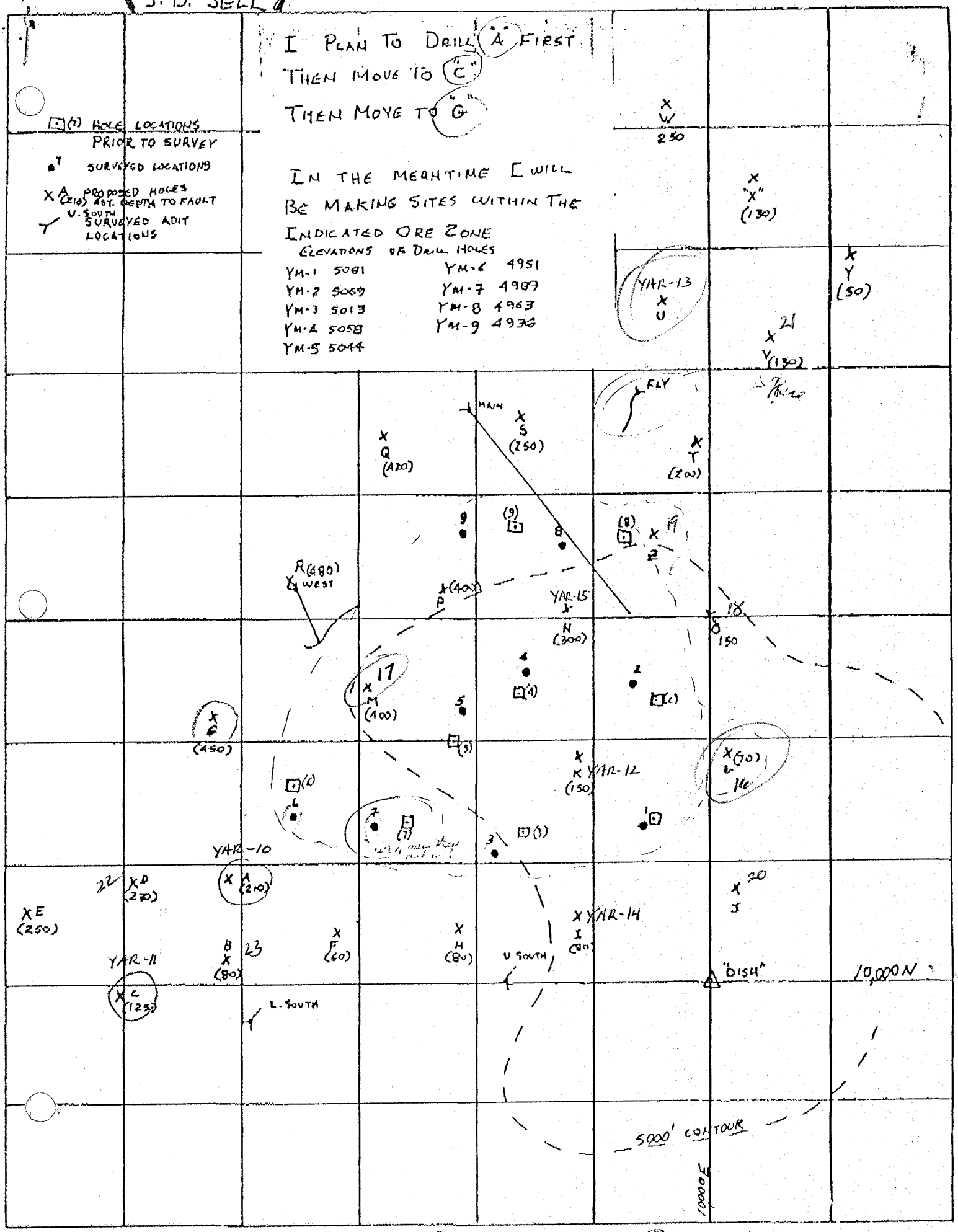
J. D. SELL

I PLAN TO DRILL "A" FIRST
THEN MOVE TO "C"
THEN MOVE TO "G"

IN THE MEANTIME I WILL BE MAKING SITES WITHIN THE INDICATED ORE ZONE

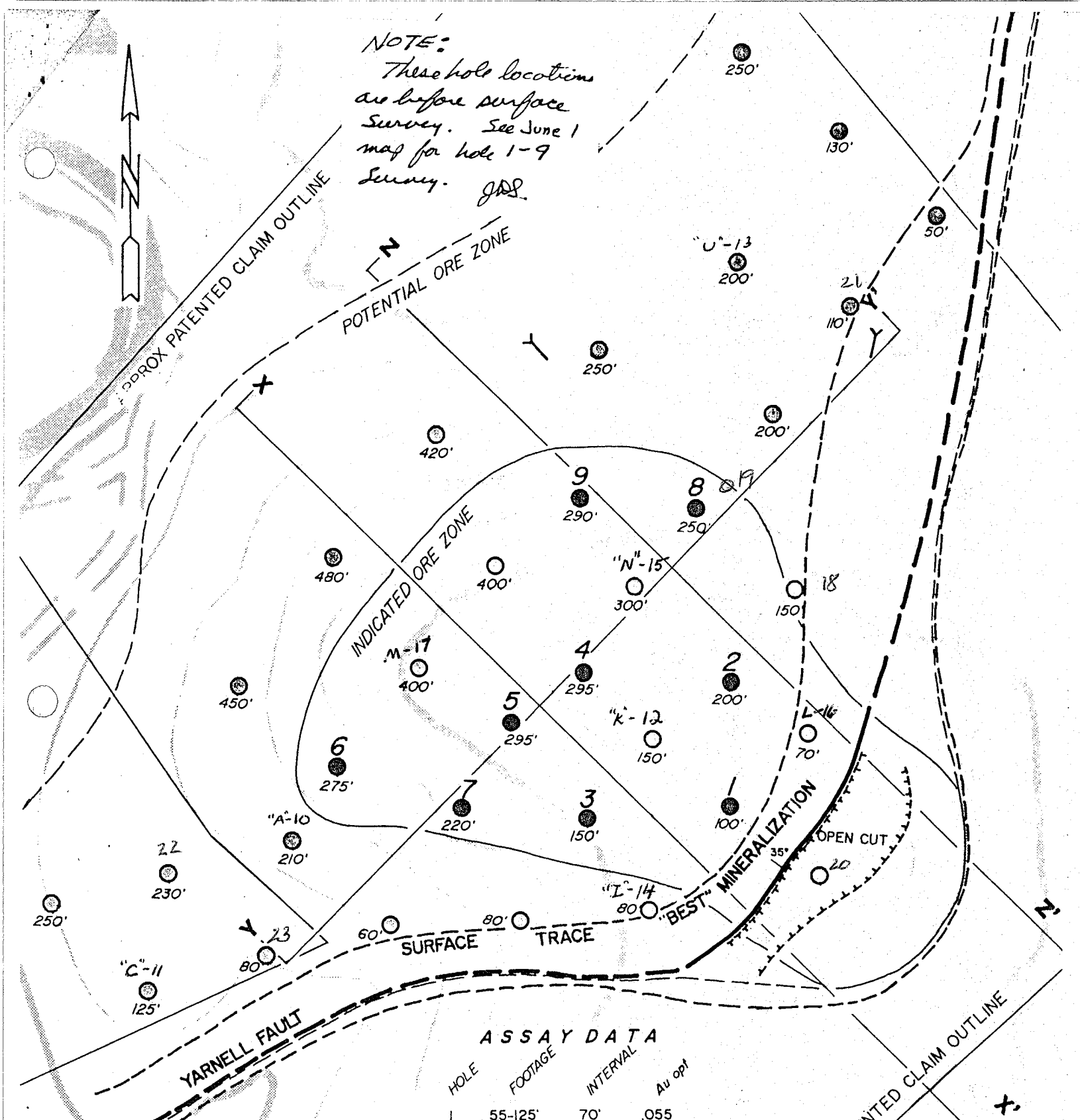
ELEVATIONS OF DRILL HOLES

YM-1	5081	YM-6	4951
YM-2	5069	YM-7	4989
YM-3	5013	YM-8	4963
YM-4	5058	YM-9	4936
YM-5	5044		



MINE YARNELL LOCATION DRILL HOLE LOCATIONS + PROPOSED HOR. LEVEL

NOTE:
These hole locations are before surface Survey. See June 1 map for hole 1-9 Survey. JAS



ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225'	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

EXPLANATION

5 / 295' — Completed drill hole depth to Yarnell Fault

210' — Proposed reverse circulation drill hole est. depth to Yarnell Fault

210' — Proposed conventional rotary drill hole est. depth to Yarnell Fault

T. 10 N., R. 5 W., SEC. 14

ASARCO Incorporated

YARNELL PROJECT

DRILLING PROGRESS

YAVAPAI CO. ARIZONA

0 — 200'

contour interval 40'

mn6689 WLK/dam tuc 04-17-89

6/6/89

Yarnell

1. Drill Hole Sequence

10 - A	300'	15-N	350'
11 - C	260	16-L	150'
12 - K	240	17-M	
13 - U	280		
14 - I	160		

2. You recentered fault plane since coordinates & elevations are different from mine.

3. R B Crist will do Yarnell Demographics & Housing sales, who-what, some water some sewerage et al starting Monday 12.

4. Ask JJ to get Grizzly Expl signs before he goes up to Miami.

ASARCO

Exploration Department
Western USA

W. L. Kurtz
Manager

June 1, 1989

Mr. Christopher Moat, President
Norgold Resources (US) Inc.
2380 Harbour Centre
P.O. Box 12122
555 West Hastings Street
Vancouver, B.C., V6B 4N6
Canada

Yarnell Project
Yavapai County, AZ

Dear Mr. Moat:

In response to your recent request I have attached a map showing the location of the drill sites for the drilling which will commence shortly. Obviously, some sites may change as the drilling progresses.

We also plan to do additional metallurgical work.

Very truly yours,

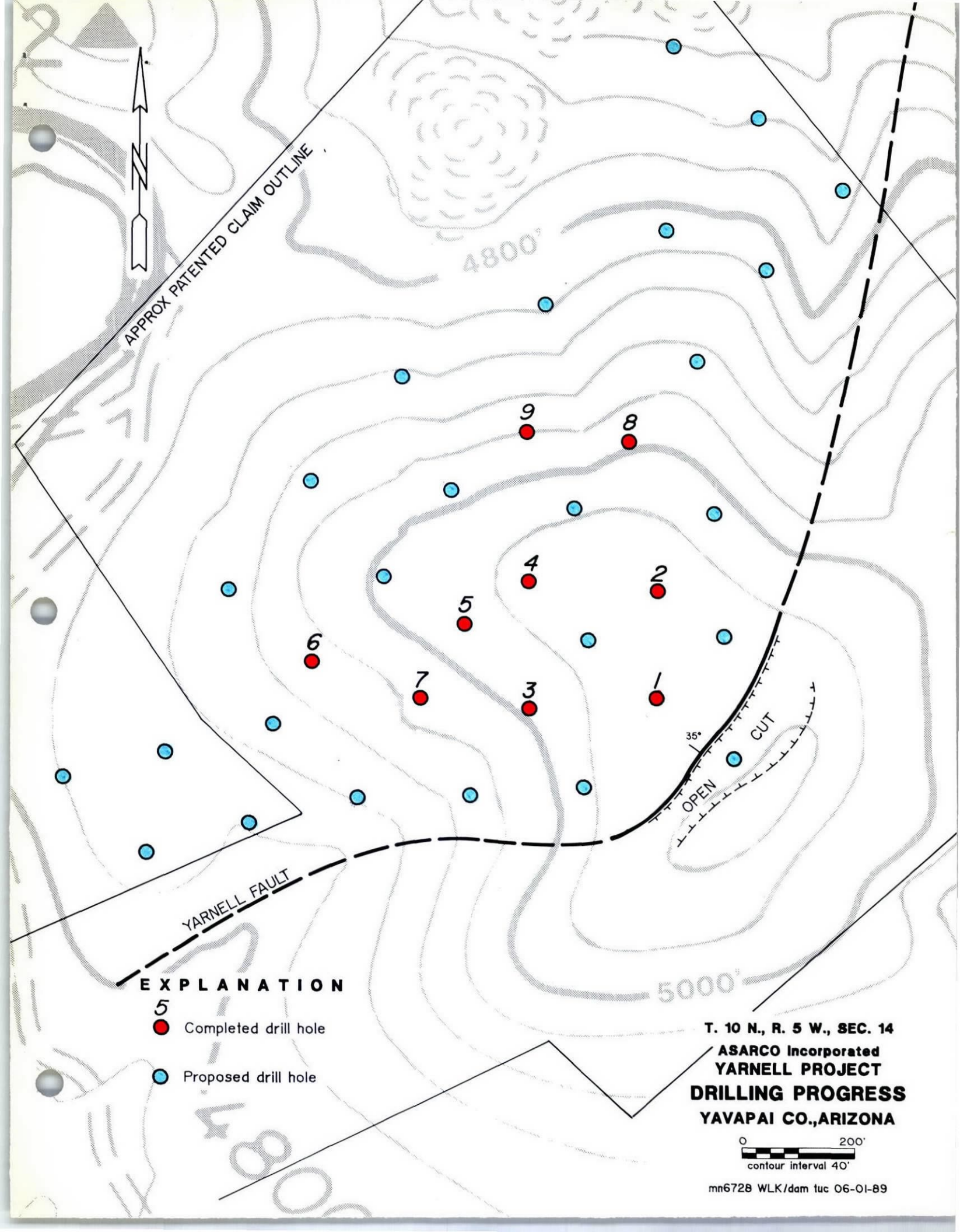
W. L. Kurtz

W.L. Kurtz

WLK:mek

cc: R.L. Brown
J.D. Sell

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010


APPROX PATENTED CLAIM OUTLINE
4800'
9
8
4
2
5
6
7
3
1
35°
OPEN CUT
YARNELL FAULT
5000'
EXPLANATION
5
Completed drill hole
Proposed drill hole
T. 10 N., R. 5 W., SEC. 14
ASARCO Incorporated
YARNELL PROJECT
DRILLING PROGRESS
YAVAPAI CO.,ARIZONA
0
200'
contour interval 40'
mn6728 WLK/dam tuc 06-01-89

~~FTG~~ RLB via FTG 6/1/89.

Yannell Bisset

1. RLB wants feasibility by end of year!

Prelim 6/2 — 2. Need Flow Chart of Task vs Month. Copies to NYC, SCWMD, MBD, et al.

on-going talks w/ contractors pre-bid — 3. Aerial Photos in color of Sec. 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, & 27 with contact print of "mining area" centered on ± disk.

dr plans — 4. Diamond Drilling, for met content & structure

Tech SPD hired for drilling — 5. Supplemented help for MAM — preferably geologist, especially if project continues after Phase drilling. No excuse for LACK OF PERSONNEL!

on-stream — 6. Clean up claim blocks & panel all known corners.

on stream — 7. Prudent man discovery on each acquired claim.

SWMD Skidmore — 8. List of all permits needed & time table/event for mining operations. Talk to SCWMD - Skidmore.

9. Have Skidmore redo ROI, using:

land costs

royalty costs

clean-up costs

etc

after tax basis - full tax load.

on-going — 10. Column Leach tests, how much needed, SLC man good, say RLB. Preliminary test completed, see letter from WLIL to MBD on future.

Thoughts on-going — 11. Water Supply

12. Alert SCWMD that this is FAST TRACK project.

13. Fence-tiers by hands-on SDS → MAM, DCG

FAX

6/1/09

YARNELL

FROM: W. L. KURTZ

TO: F. T. GRAYBEAL

A rough time schedule for Phase II Budget for the major work events:

JUNE-JULY: 10,000 RC drilling, one rig 10 day on 4 days of

JULY: Diamond drill 4 holes (HQ core ≈ 5 pounds/foot)

DD #1 200'
#2 200'
#3 300'
#4 400'

250#

AUGUST-SEPT 60 DAY COLUMN LEACH in four 6" x 4' columns tests

[6" x 4' column require ≈ 100 pounds of crushed core per column]

JUNE-SEPT: Geology, topo, permitting flow sheet; cross-sections; etc, etc, etc

END OF PHASE II BUDGET

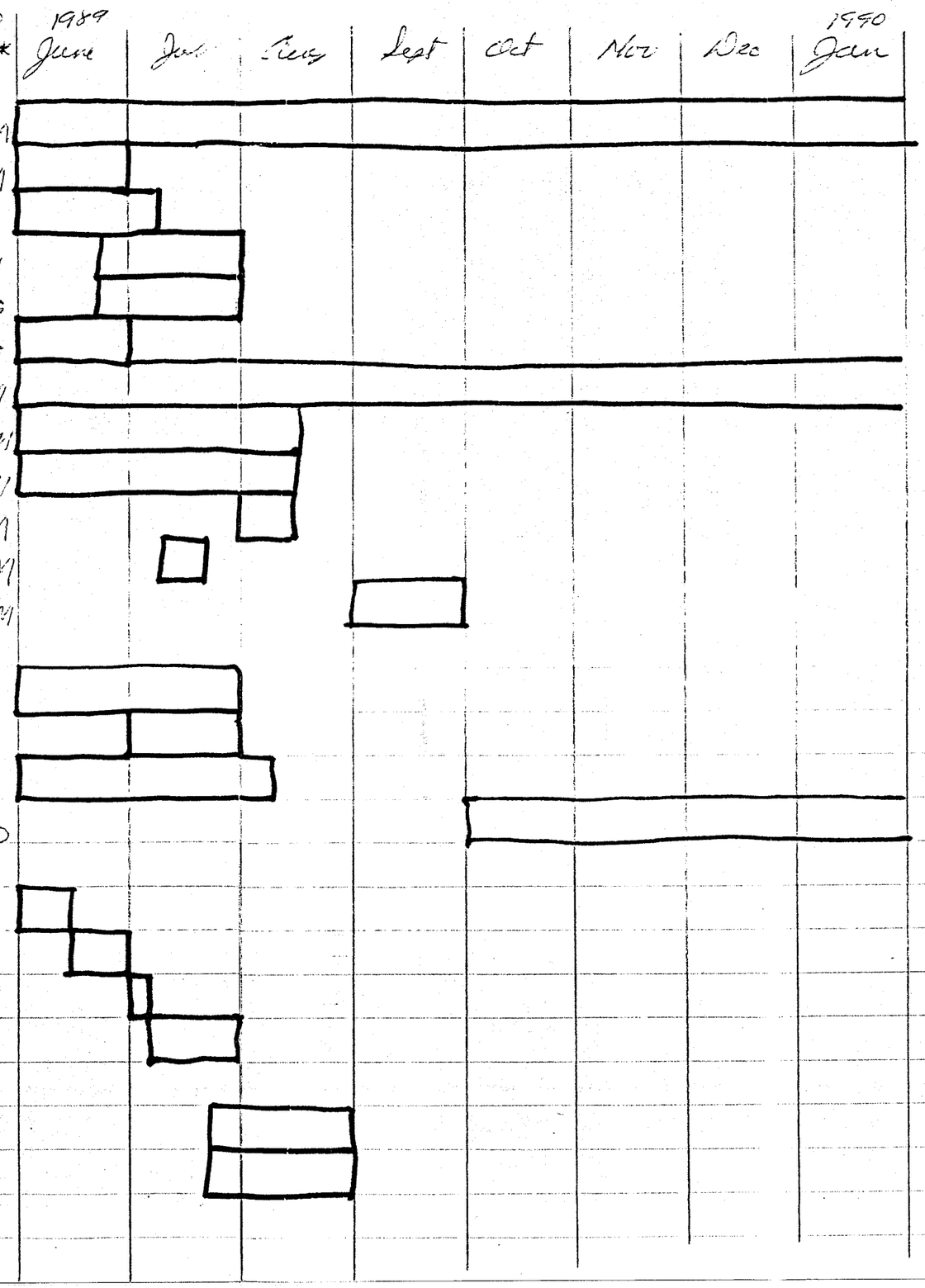
PHASE III NOT BUDGETED OCT — DEC

DEVELOPMENT DRILL; FEASIBILITY; MINE PLAN; FINISH PERMITTING; FINISH WATER SUPPLY; FINISH PUBLIC RELATIONS; FINISH, FINISH, FINISH

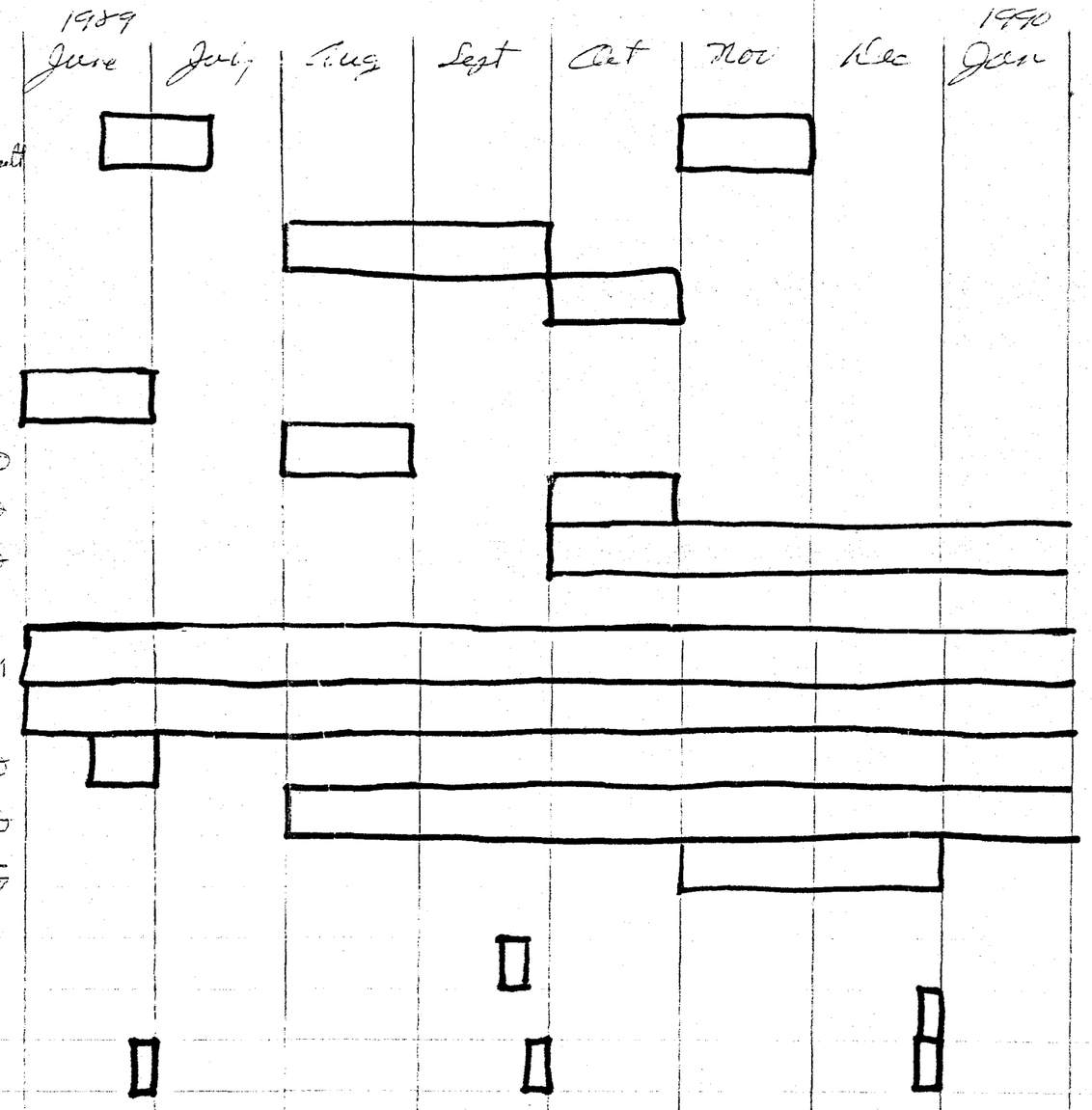
cc. JD SELL (who will refine above)

Yarnell Project #A-0444

Area of Activity	Personnel *
Project Supervision, Geologist	MAM
Geol. Mapping/Alteration Study — Claim Area	MAM
Sampling for Discovery — Claim Area	MAM
Mapping/Sampling — Outside Claim Area	MAM
Claim Staking Anomalous Areas	MAM-DWG
Complete Leasing of State Sec. 22	MAM-DWG
Monthly Reports	MAM
Drill Hole & Cross Section, etc Reports	MAM
Assay Reports	MAM
Final Drilling/Geology/Ore Reserve Est. Report	MAM
Vacation (July 7-21)	MAM
Water Supply Evaluation/Recommendation	MAM
Rotary Drilling, incl Site Prep. 25 holes	SPD
Core Drilling, incl. Site Prep. 4 holes	SPD
Drill Hole Location Survey	WDG
Development/Condemnation Drilling	MAM-SWMD
Claim Survey, Clean-up.	WDG
Aerial Survey Control Points	WDG
Photography, Aerial	WDG-Contractor
Topographic Map, Mineral Area	WDG-Contractor
Underground Surveying	WDG
Underground Sampling	WDG



Area of Activity	Personnel
Local Demography (Garnell Government/Popular Consult)	
Column Leach Tests	MBD
Metallurgical Reports/Recommendations	MBD
Re-Turned ROI ~~Estimate~~ Preliminary	SWMD
Ore Reserve	SWMD
Feasibility	SWMD
Mine Planning/Development	SWMD
Permit, Drilling-as needed.	MAM
Base Line Water Study	WDG
Permits – Establish Guideline/Time Table	SWMD
Permits for Mining/Metallurgy Operations	SWMD
Move Microwave Towers	WDG
Decision Point for Guarantee 100K Payment	
Payment to Western Building – 100 K	
Payments to Nongold	



* Note: MAM, Mark A. Miller, Geologist
SPD, Steven P. Duncan, Technician
WDG, William D. Gay, Land Engineer
SWMD, Southwestern Mining Dept.
MBD, Mineral Beneficiation Dept.

Yarnell Project EA-0444

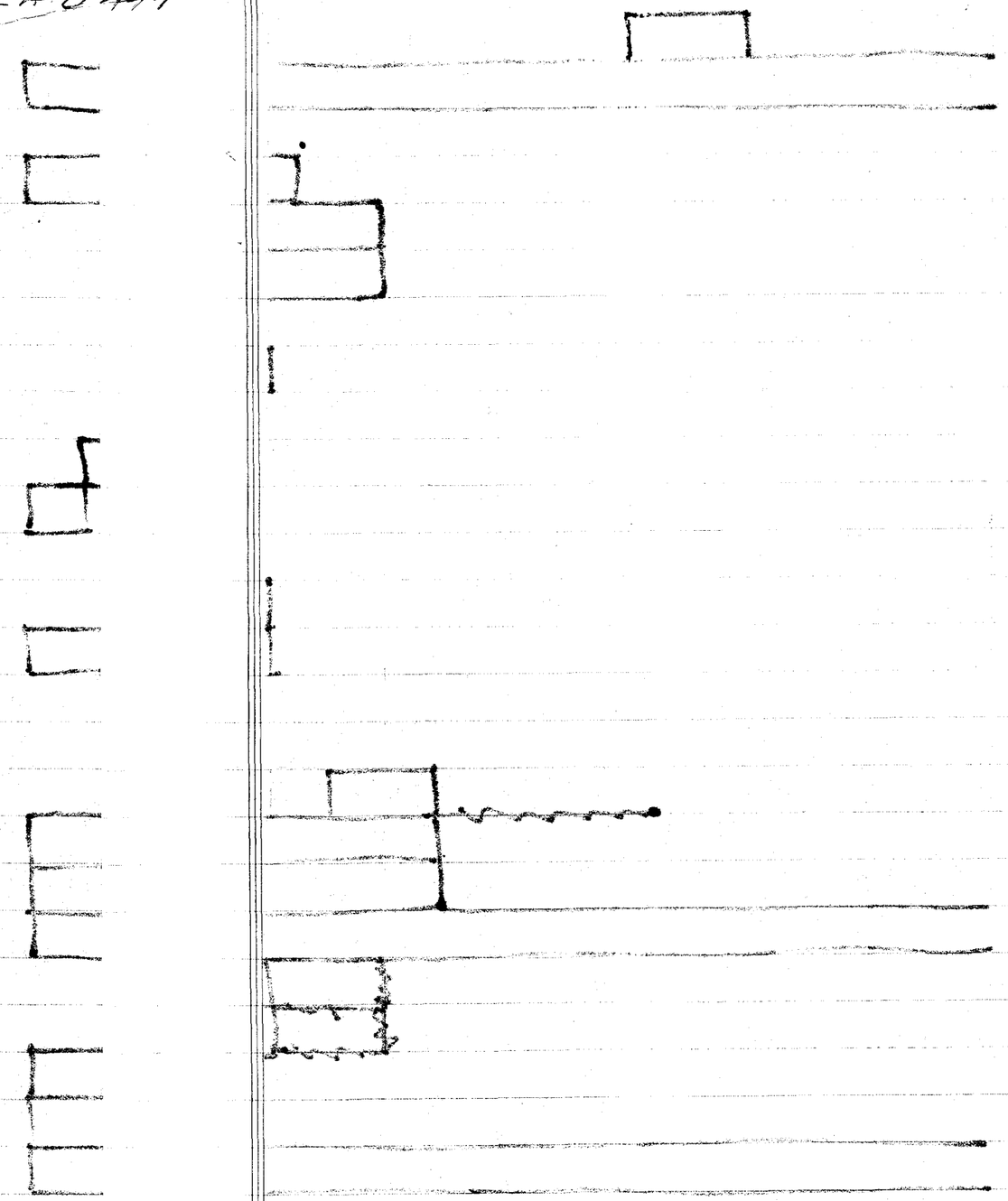
Area	Proposed ~~Staff~~	1989 June	July	Aug.	Sept	Oct	Nov.	Dec	1990 Jan
Project Supervision, Geologist	MAM								
Geol. Mapping/Alteration Study, Claim Blk area	MAM								
Sampling for ~~verification~~ discovery, Claim Blk area	MAM								
Mapping, Sampling, Outside Claim blk area	MAM								
Claim ~~Staking~~ Anomalous Areas Leasing of Section 22	MAM-Dwig ~~MAM-Dwig~~								
Reports, Monthly	MAM								
Reports, Drill Holes, Cross-Sections, etc.	MAM								
Reports, Assays	MAM								
Final Drilling/Geology Report with or without estimates	MAM								
Vacation (July 7-21)	MAM								
Water Supply	~~MAM~~								
Rotary Drilling, 10,000 ft/incl. Site prep.	SPD								
Core Drilling, 4 holes, incl. Site prep.	SPD								
Development Drilling; confirmation drilling	MAM/SWMD								
Claim Survey, clean-up	WDG								
Aerial Survey Control Points	WDG-Contractor								
Photo, aerial coverage	WDG-Contractor								
Topographic Map, Mine Area	WDG-Contractor								
Underground Surveying	WDG-~~[illegible]~~								
Underground Sampling									
~~Drill Hole Location Survey~~	WDG ~~[illegible]~~								
~~Underground~~ Hole Location Survey	WDG-~~[illegible]~~								
~~Base Line Water Survey (Springs, Wells)~~	WDG ~~MAM~~								
Local Demography (Yarnell Govern., Populac. Consult.									

Yarnell Project EA-0444

Area	Personnel ~~Staff~~	1989 June	July	Aug.	Sept	Oct	Nov.	Dec	1990 Jan
Project Supervision, Geologist	MAM								
Geol. Mapping/Alteration Study, Claim blk area	MAM								
Sampling for ~~verification~~ discovery, Claim blk area	MAM								
Mapping, Sampling, Outside Claim blk area	MAM								
Claim Staking Anomalous Areas (Leasing of Section 22)	MAM-DWG ~~MAM-DWG~~								
Reports, Monthly	MAM								
Reports, Drill Holes, Cross-Sections, etc.	MAM								
Reports, Assays	MAM								
Final Drilling/Geology Report with Ore Reserve estimate	MAM								
Vacation (July 7-21)	MAM								
Water Supply	~~MAM~~								
Rotary Drilling, 10,000 ft incl. Site prep.	SPD								
Core Drilling, 4 holes, incl. Site prep.	SPD								
Development Drilling; condemnation drilling	MAM/SWMD								
Claim Survey, clean-up	WDG								
Aerial Survey Control Points	WDG-Contractor								
Photo, aerial coverage	WDG-Contractor								
Topographic Map, Mine Area	WDG-Contractor								
Underground Surveying	WDG-~~MAM~~								
Underground Sampling									
~~Drill Hole Location Survey~~	WDG ~~MAM~~								
~~Drill Hole~~ Hole Location Survey	WDG-~~MAM~~								
~~Base Line Water Survey (Springs, Wells)~~	WDG ~~MAM~~								
Local Demography (Yarnell Govern., Populac. Consult.									

Yarnell Project, EA-8444

Geol. Mapping



Copper 3185

			1989 June	July	Aug	Sept	Oct	Nov	Dec	1990 Jan
~~Metallurgical Reports~~	MBD	~~ASARCO~~								
Coleman Leach Tests	MBD	ASARCO								
MET REPORTS, RECOMMENDATIONS	MBD									
Preliminary ROI (Completed)	SWMD	~~ASARCO~~								
Re-Turned ROI	"	~~ASARCO~~								
ORE RESERVE ~~Feasibility Study~~	"	~~ASARCO~~								
FEASIBILITY JOB	SWMD									
MINE PLANNING — DEVELOPMENT	SWMD									
Permits: (as need basis)										
Drilling, ~~Start (Completed)~~	MAM									
~~Drilling Completion~~	MAM									
PERMITS — Establish permits necessary; time needed for acquisition										
~~Special Land Use~~		~~ASARCO~~								
~~Air Quality~~		~~ASARCO~~								
PERMITTING FOR ~~MINE~~ MINING OPERATION										
~~Water Quality~~		~~ASARCO~~								
~~Other~~ Baseline water study	WDG	~~ASARCO~~								
Decision Point for Guarantee of Payment		Nothing ~~ASARCO~~								
Payment to Western Building, $100,000		~~ASARCO~~								
Payments to Norgold		~~ASARCO~~								
~~Move Microwave Towers~~										

Note: MAM, mark A Miller, ~~geologist~~
SPD, Steven P. Duncan, technician
WDG, William D Gary, land engineer
MBD Metallurgical Beneficiation Dept.
SWMD Southwestern Mining Department

6/1/89

FROM: W. L. KURTZ

TO: JD SELL

1] Mark Miller does not decide what goes to SAA, Skidmore.
You, I will send it, when necessary!!

2] O.K. Drill A and C (DO NOT DRILL G now) then try to move to Northeast (U and V should be close enough to road to alert) or X (access probably not available) over

if can't get to NE
than drill with "indicated
ore" outline.

What are your
desires/thoughts

ASARCO

Southwestern Exploration Division

May 15, 1989

J.D. Sell

Rotary/Reverse Circulation
Drilling, Yarnell Project

The attached map indicates the proposed holes that could be drilled by conventional rotary and those which should be drilled by reverse circulation (due to the change of intersecting underground workings). By adding 75' to each drill hole below the projection of the Yarnell Fault total footage for reverse circulation is approximately 4000' and conventional drilling is approximately 3000'.

I have talked to Mark Madison from Drilling Services regarding the current bid of $7.95/ft. I asked him to refigure the bid at 10,000' contract. He will refigure and contact us the end of this week. If the cost between reverse circulation vs. rotary drilling is small, I would prefer to drill reverse circulation and eliminate (as much as possible) the chance for contamination of the ore zone.

Mark A. Miller

MAM:mek
Att.

cc: W.L. Kurtz

Holes to be drilled with Reverse Circulation Drilling

Hole No.	Depth To Y Fault	Total Depth
10	250'	325'
11	125	200
12	230	300
13	80	150
14	60	130
15	80	150
16	80	150
17	17	100
18	150	225
19	400	475
20	400	475
21	300	375
22	150	225
23	70	150
24	420	500
		3930'

Holes that could be drilled by Conventional Rotary

Hole No.	Depth To Y Fault	Total Depth
25	250'	325'
26	200	275
27	200	275
28	110	180
29	250	325
30	130	200
31	50	125
32	480	550
33	450	520
34	210	280
		3055'

ASARCO

Exploration Department
Western USA

CONFIDENTIAL

June 1, 1989

J.D. Sell
Tucson Office

Yarnell

You have admirable trait of being able to divorce yourself from projects and allow the Project Manager to accept all the responsibility.

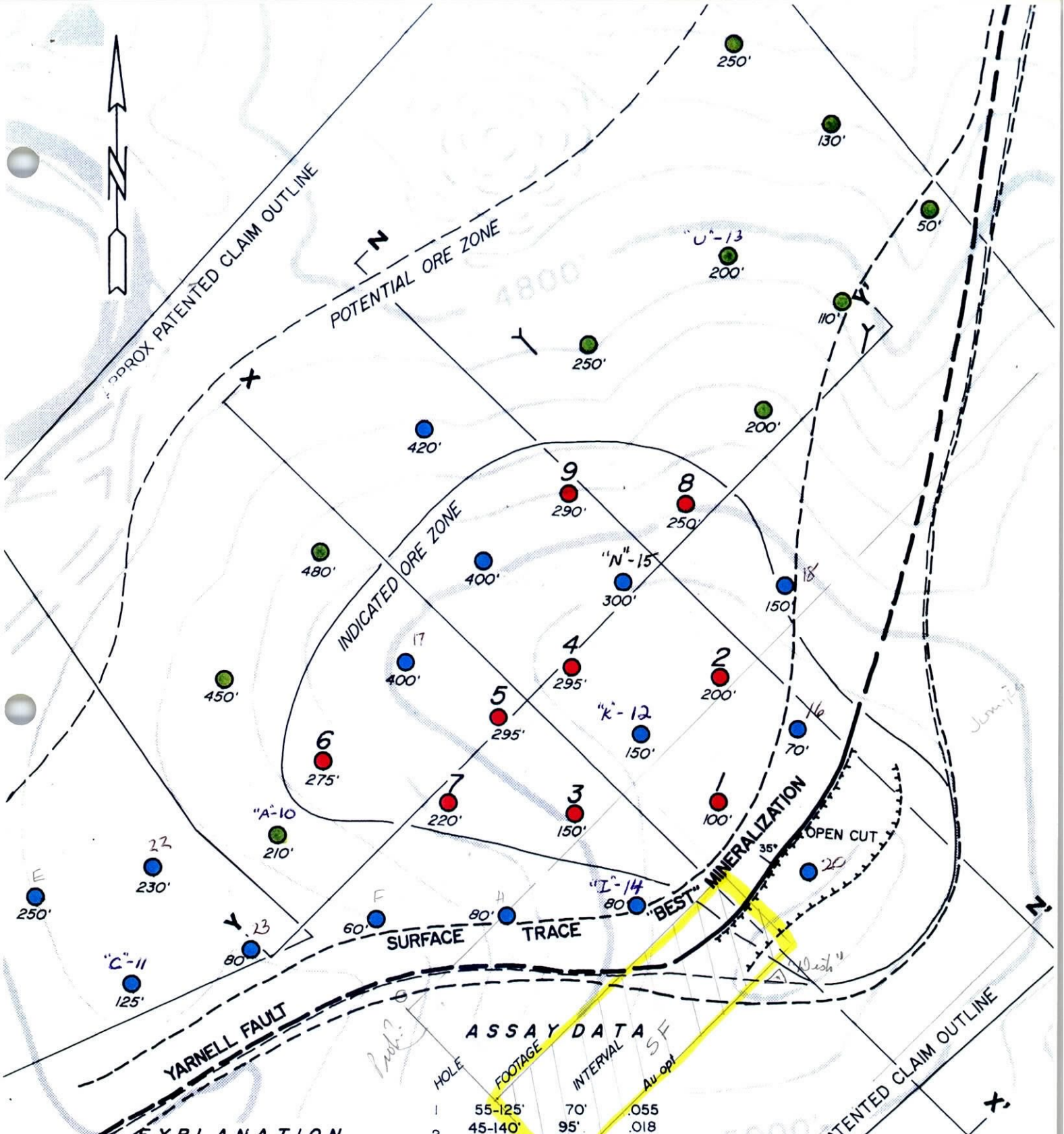
In the case of Yarnell because of Miller's unfamiliarity with all the ramifications connected with a major project and a potential mine, it is important that you retain a close association and control of the project. It is your neck one will want to hang if ...

WLK:mek

W. L. Kurtz

cc: R.L. Brown
F.T. Graybeal

NOTE:
These hole locations are before surface survey. See June 1 map for hole 1-9 survey. JDS.



ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225'	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

EXPLANATION

5 / 295' — Completed drill hole depth to Yarnell Fault

210' — Proposed reverse circulation drill hole est. depth to Yarnell Fault

210' — Proposed conventional rotary drill hole est. depth to Yarnell Fault

T. 10 N., R. 5 W., SEC. 14

ASARCO Incorporated

YARNELL PROJECT

DRILLING PROGRESS

YAVAPAI CO. ARIZONA

0 — 200'

contour interval 40'

mn6689 WLK/dam tuc 04-17-89

June 1, 1989

ARIZONA DEPARTMENT OF WATER RESOURCES

15 South 15th Avenue, Phoenix, AZ 85007

Asarco Incorporated
P.O. Box 5747
Tucson, Az. 87503

Registration No. 55-524750
File No. B(10-5)14

JUN 6 1989
SW Exploration

ATTN: M.A. MILLER/J.D. SELL

Dear Well Owner:

Enclosed for your records is an annotated copy of the Notice of Intention to Drill an exploration well which was recently filed with this Department. This is returned to you as evidence of compliance with A.R.S. §45-596. Your designated driller has been mailed separately a Well Drilling Card which he is required to have in his possession before commencing to drill the well.

[ ] Since this well is being drilled as a monitor well, or for cathodic protection, grounding, geotechnical or piezometer purposes, our standard driller report form is also being furnished to the driller which he is required to complete and return to the Department within 30 days after the completion of drilling. A Completion Report form is being furnished for monitor wells where pump equipment is authorized to be installed as part of this packet so that you may submit the report within 30 days after the installation of pumping equipment on a monitor well as required by A.R.S. §45-600.

[XX] This well is authorized to be drilled for mineral exploration purposes. Because of this, no pump equipment may be installed. A Project Completion Report is being furnished your designated driller for each hole to be drilled. Your driller is required to submit this Project Completion Report within 30 days after completion of drilling. You should insist that this is done.

For monitor, geotechnical, cathodic protection, grounding and piezometer wells, you should obtain the written permission of the Department of Water Resources before proceeding with the drilling in the event that you determine it necessary to change the location of the proposed well. A properly signed amended Drilling Card must be in the possession of the driller before drilling commences at a different location than originally authorized.

For your future use, a Change of Well Information form is enclosed should it become needed. Per A.R.S. §45-593, the person to whom a well is registered shall notify this Department of a change of ownership of the well and/or information pertaining to the physical characteristics of the well, including abandonment, in order to keep the well registration file current and accurate.

Sincerely,

R.A. Gessner

R. A. Gessner
Chief, Operations Division

RAG:
Enclosures
DWR-55-8-8/84

EXPLORATION WELL(S)

FILING FEE $10.00

DEPARTMENT OF WATER RESOURCES (DWR)
NOTICE OF INTENTION TO DRILL
EXPLORATION WELL(S)

EXPLORATION WELL(S)

Section 45-596, Arizona Revised Statutes and Rule R12-15-817 provide: Prior to drilling one or more exploration wells, the well owner, lessee or exploration firm shall file a Notice of Intention to Drill on a form provided by the Department.

WELL/LAND LOCATION

1. Township 10 N/~~S~~
   Range 5 ~~E~~/W
   Section 14

In the case of a single well, list 10-acre subdivision

____ ¼, ____ ¼, ____ ¼

2. County Yavapai

3. Applicant:
   ASARCO Incorporated
   Name
   P.O. Box 5747
   Address
   Tucson, AZ 87503
   City State Zip

4. M.A.Miller/J.D. Sell
   NAME OF CONTACT PERSON
   Phone 602-792-3010

5. Owner of well:
   Applicant
   Name
   same as above.
   Address
   City State Zip

6. Purpose of well(s) drilled pursuant to this Notice:
   Mineral Exploration X
   Geotechnical ____
   Cathodic Protection ____
   Grounding ____

7. Number of wells 25
   (See Condition 3 on reverse)

8. Owner of land:
   Norgold Resources
   Name
   P.O. Box 12122
   Address
   Vancouver, B.C. V6B-4N6
   City State Zip

9. DESCRIPTION OF WELL:
   Diameter 5½ inches
   Depth 500 feet
   Type of casing Steel Surf. if necessary.
   (If none, so state)

10. Construction will start:
    6 1 1989
    Month Day Year

11. Drilling firm:
    Drilling Services Co.
    Name
    12030 E. Riggs Road
    Address
    Chandler, AZ 85249
    City State Zip
    52
    DWR License Number

12. Period well will remain in use 0 months.

13. Proposed method of abandonment of well(s) after project is completed:
    Per rule R-12-15-816

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

File No. B(10-5)14
Filed 5-23-89 By SV
Input ____ By ____
Duplicate Mailed 6-1-89 By SV
Registration 55-524750
AMA/INA ____
W/S ____ S/B ____

A
JUN 6 1989
SW Exploration

14. Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility or storage area of hazardous materials? Yes ____ No X

If yes, a request for a variance must accompany this application pursuant to R12-15-820.

GENERAL INSTRUCTIONS

1. Fill out this form in duplicate and mail to Department of Water Resources, Suite 100, 99 East Virginia, Phoenix, Arizona 85004.
2. Proper filing fee of $10.00 must accompany Notice.

I state that this Notice is filed in compliance with Rule R12-15-809 and is complete and correct to the best of my knowledge and belief and that I understand the conditions set forth on the reverse side of this form.

DATE 5-22-89

Signature of Applicant

HYDROLOGY APPROVED

DWR 55-40-8/86 (Revised)

CONDITIONS

1. Construction and abandonment standards for all wells shall be in accordance with DWR Rules R12-15-811 and R12-15-816.

2. Drilling of the well(s) shall be completed within one (1) year after the date of Notice.

3. Mineral exploration, geotechnical, cathodic protection or grounding holes of 100 feet of depth or less do not apply to these provisions and do not require filing. However, if water is encountered during the drilling of these wells, then the well(s) must be properly abandoned in accordance with Condition 1 above.

4. More than one well may be drilled under a single notice for mineral exploration, geotechnical, cathodic protection and grounding purposes, so long as they are located within a single section.

5. A Project Completion Report, DWR-55-42-10/83, for each hole is required within 30 days of completion of the project.

6. Pump equipment may not be installed on wells drilled for mineral exploration, geotechnical, cathodic protection or grounding purposes.

7. Special construction standards required pursuant to R12-15-821: _____

_____

_____

MAR 23 1989

ARIZONA DEPARTMENT OF WATER RESOURCES
15 South 15th Avenue
Phoenix, Arizona 85007

NOTICE OF ABANDONMENT

A.R.S. §45-594; R12-15-816(E): The owner or operator of the well shall notify the Department in writing no later than thirty days after the abandonment has been completed.

1. Well location;

   Township _____

   Range _____

   Section _____

   _____ ¼ _____ ¼ _____ ¼
   (10 acre subdivision)

   County _____

2. Owner of the well:

   _____
   Name

   _____
   Address

   _____
   City State Zip

3. Owner of the land:

   _____
   Name

   _____
   Address

   _____
   City State Zip

4. Well Description:

   Depth of hole _____

   Diameter of hole _____

   Type of casing _____

5. Well Registration Number:

   _____

   File Number:

   _____

6. Prior to abandonment, did the well penetrate any water-bearing layers?

   Yes _____ No _____ Unknown _____

7. Prior to abandonment, did the well have 20' of steel surface casing <u>and</u> 20' of grout in the annular space surrounding the surface casing?

   Yes _____ No _____

8. If the answer to No. 7 is no, was the top 20' of casing removed prior to setting the cement plug?

   Yes _____ No _____

9. Was the well filled with cuttings or other non-toxic material prior to setting the cement plug?

   Yes _____ No _____

10. If the answer to No. 9 is yes, what material was used to fill the well?

    _____

11. How deep does the cement plug extend below land surface?

    _____

12. Was the well backfilled above the cement plug?

    Yes _____ No _____

13. Date abandonment complete:

    _____

I state that this Notice is filed in compliance with A.R.S. §45-594: R12-15-816(E), and is complete and correct to the best of my knowledge and belief.

DATE _____ SIGNATURE _____

DWR-55-46-12/83

ARIZONA DEPARTMENT OF WATER RESOURCES
Operations Division
15 South 15th Avenue
Phoenix, Arizona 85007

CHANGE OF WELL INFORMATION

Well Reg. No.

File (location) No.

I/We request the following well information be changed:

_____

_____

_____

_____

_____

Date: _____, 19____ _____
Signature of current Well Owner

(DO NOT CUT THIS FORM IN HALF)

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, _____, state that I am (no longer) the (new)
(please print)
owner of the well described below:

Township _____ Range _____ Section _____; _____¼ _____¼ _____¼

Well Registration No. _____ File (location) No. _____

_____
Previous Owner

_____
PRINT New Owner's Name

_____
Address

_____
Signature of New Owner

_____
City State Zip

_____
Address

DATED: _____

_____
City State Zip

NOTE: A.R.S. §45-593.C. requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within thirty (30) days after changes take place.

SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP, CHANGES IN ADDRESS, OR CHANGE IN WELL DATA SUCH AS PUMP CAPACITY, CORRECTION OF LEGAL DESCRIPTION, CHANGE OF WELL DRILLER, PRIOR TO DRILLING THE WELL, IN ADDITION TO AMENDING INFORMATION PREVIOUSLY FILED.

* * * * *

DWR-55-51-7/88

VDS

Drilling Services Company

Division of LAYNE-WESTERN COMPANY, INC.

12030 East Riggs Road • Chandler, Arizona 85249 • (602) 895-9336

June 1, 1989

Mr. Mark A. Miller
Project Geologist
ASARCO Southwest Exploration Division
P.O. Box 5747
Tucson, AZ 85703

Dear Mark:

This letter is to confirm our recent agreements concerning the upcoming drilling project at Yarnell. Please consider this as addendum "A" to our pre-existing contract. As stated during our phone conversation on May 30, 1989 the footage price shall be reduced from $7.95 per foot to $7.50 per foot provided that we are guaranteed a minimum total footage of 10,000 feet. Also, as written in the previous contract, a lump sum mobilization fee of $500.00 will be charged for the furnishing of equipment and personnel as per schedule "A" and "B".

We look forward to working with you and ASARCO once again and sincerely appreciate this opportunity. If you have any questions or problems during this project, feel free to call me any time.

Sincerely,

Mark J. Madison

Mark J. Madison

JUN 2 1989

SW Exploration

MJM:jmb

Verbal to MAM 6/1/89 PM.

A, ~~then~~ ready to go on 6/2 when rig is in.

C., will be ready when cat moves in on 6/2

Will then go to U U or Y along road for next. (in NE.).

Then, rest inside previous drilling

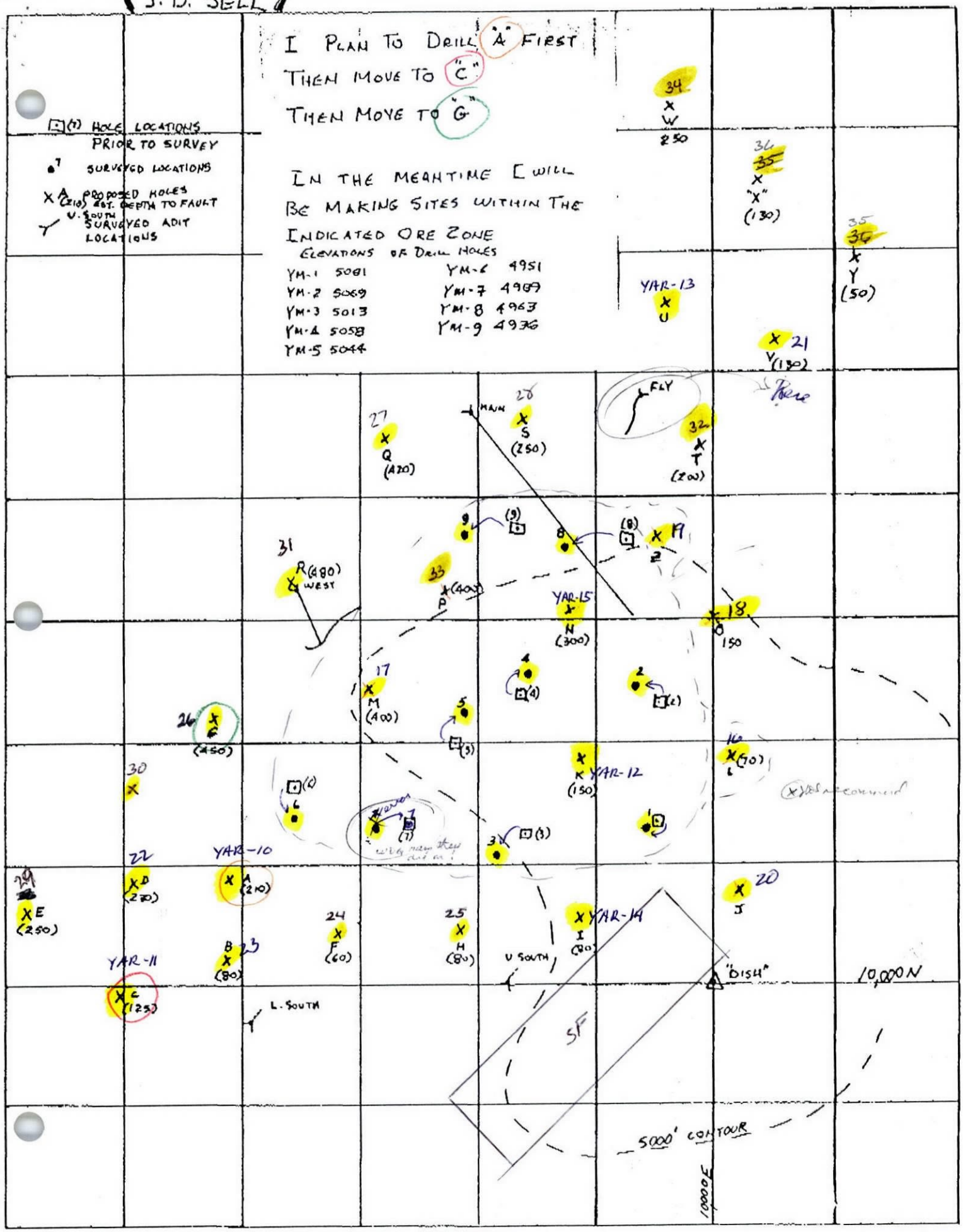
J. D. SELL

I PLAN TO DRILL "A" FIRST
THEN MOVE TO "C"
THEN MOVE TO "G"

IN THE MEANTIME I WILL
BE MAKING SITES WITHIN THE
INDICATED ORE ZONE

ELEVATIONS OF DRILL HOLES

YM-1	5081	YM-6	4951
YM-2	5069	YM-7	4989
YM-3	5013	YM-8	4963
YM-4	5058	YM-9	4936
YM-5	5044		



MINE YARNELL LOCATION DRILL HOLE LOCATIONS + PROPOSED HOLE LEVEL
GEOLOGY BY SURVEY DATE SCALE 1" = 200'

Your Secretary

335 Whipple St./P.O. Box D
Wickenburg, AZ 85358
602-684-5466
FAX: 602-684-3049

DATE: 6-1-89

TIME: 11:00AM

FAX#: 792-3934

PLEASE DELIVER THE FOLOWING PAGES TO:

J.D SELL

FROM: MARK MILLER

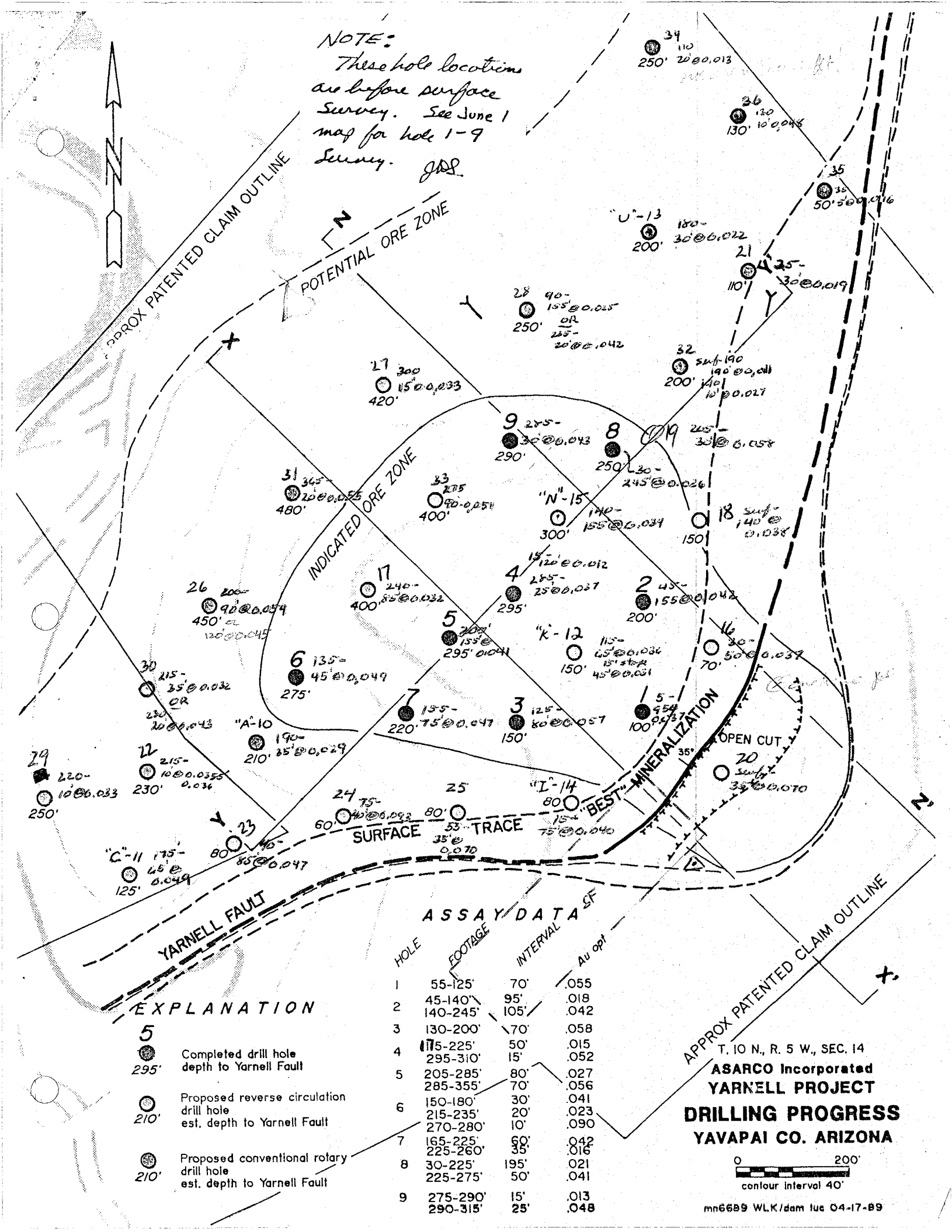
TOTAL NUMBER OF PAGES INCLUDING THIS PAGE

2

ASARCO Incorporated

JUN 1 1989

SW Exploration



ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225'	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

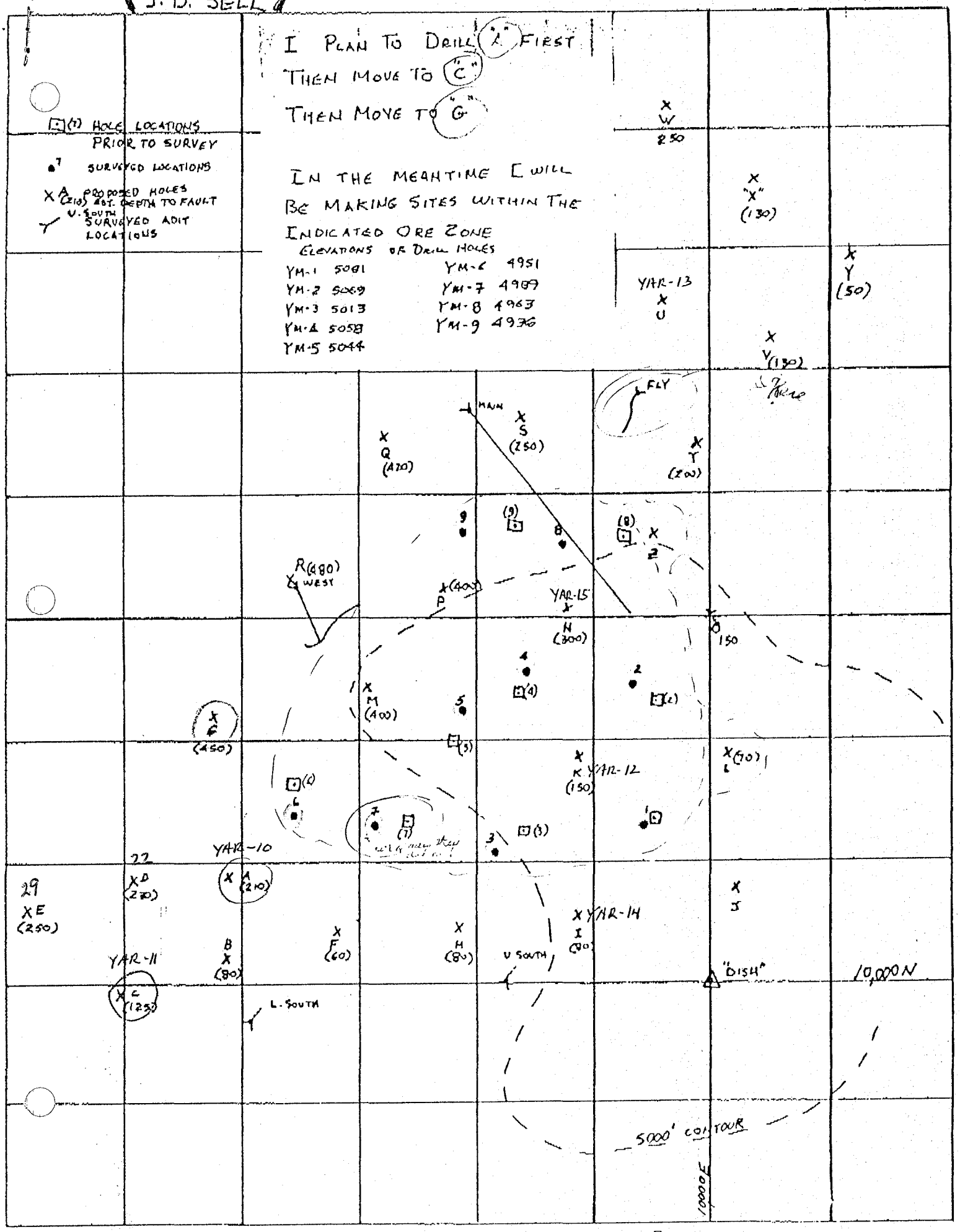
J. D. SELL

I PLAN TO DRILL "A" FIRST
THEN MOVE TO "C"
THEN MOVE TO "G"

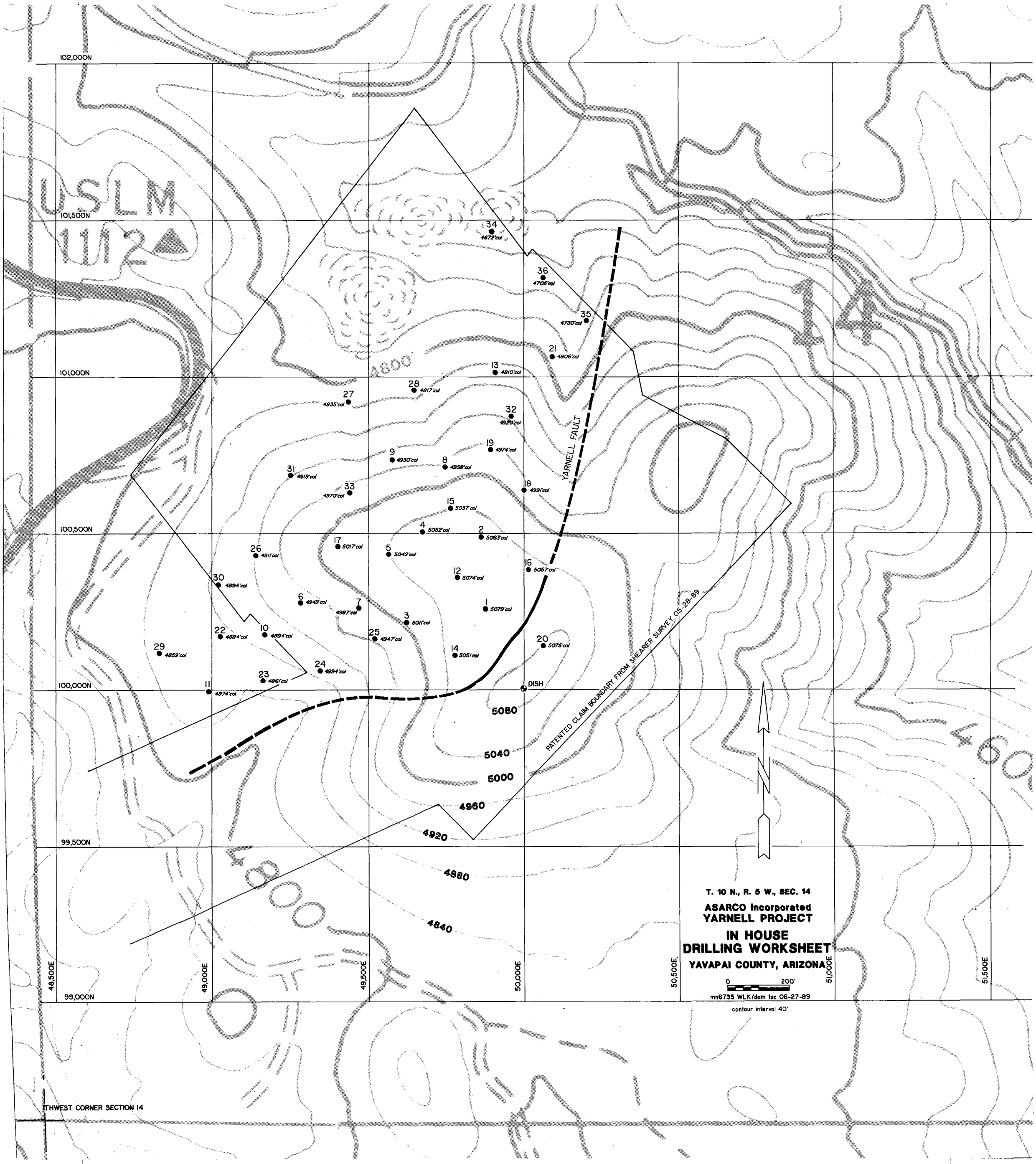
IN THE MEANTIME I WILL BE MAKING SITES WITHIN THE INDICATED ORE ZONE

ELEVATIONS OF DRILL HOLES

YM-1	5081	YM-6	4951
YM-2	5069	YM-7	4989
YM-3	5013	YM-8	4963
YM-4	5058	YM-9	4976
YM-5	5044		



MINE Yarwill LOCATION Drill Hole Locations + Proposed Hole LEVEL


102,000N
101,500N
101,000N
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100,000N
99,500N
99,000N
48,500E
49,000E
49,500E
50,000E
50,500E
51,000E
51,500E
USLM
1112
4800'
4600
YARNELL FAULT
PATENTED CLAIM BOUNDARY FROM SHEARER SURVEY 05-28-89
DISH
5080
5040
5000
4960
4920
4880
4840
34 4672'col
36 4705'col
35 4730'col
21 4806'col
13 4810'col
28 4817'col
27 4835'col
32 4920'col
19 4974'col
9 4930'col
8 4958'col
31 4919'col
33 4970'col
18 4991'col
15 5037'col
4 5052'col
2 5063'col
17 5017'col
5 5042'col
26 4911'col
16 5057'col
12 5074'col
30 4894'col
6 4949'col
7 4987'col
1 5079'col
3 5011'col
22 4884'col
10 4894'col
25 4947'col
20 5075'col
29 4859'col
14 5051'col
24 4994'col
23 4961'col
11 4974'col
T. 10 N., R. 5 W., SEC. 14
ASARCO Incorporated
YARNELL PROJECT
IN HOUSE
DRILLING WORKSHEET
YAVAPAI COUNTY, ARIZONA
0 200'
mn6735 WLK/dam tuc 06-27-89
contour interval 40'
THWEST CORNER SECTION 14

ASARCO

JDSall - This should be gone to TC

Exploration Department
Frederick T. Graybeal
Chief Geologist

June 1, 1989

RECEIVED
JUN 5 1989
EXPLORATION DEPARTMENT

Mr. W. L. Kurtz
Tucson Office

Yarnell Project
Arizona

Dear Mr. Kurtz:

I attach hereto a copy of Form 302-MB and the request for the Yarnell Project. Please note the form has been processed by the Controllers Department and approved by Messrs. R. deJ. Osborne and T. C. Osborne.

Yours very truly,

R. L. Brown

R. L. Brown

RLB:mc
Att.

cc: E. J. Franko (w/att.)
W. L. Schoonmaker (w/att.)

cc: C.L. Snow - Tucson Acctg.
6/5/89

ASARCO Incorporated 180 Maiden Lane New York, N.Y. 10038 (212) 510-2000
Telex:ITT 420585 RCA 232378 WUI 62522 Cables: MINEDEPART Telegrams: WU1-25991

F. T. G.
JUN 1 1989
RECEIVED
MAY 23 1989
T.C. OSBORNE

New York, N.Y., May 19, 1989

To: T. C. Osborne

Yarnell Project
Arizona

The attached summary by W. L. Kurtz states that the recently completed 9-hole program indicates good potential for 4 million tons of 0.05 oz Au with potential for 6-8 million tons at the same grade. Waste/ore ratio is unclear, but will be less than 6/1. Bottle roll tests indicate 70% heap leach recovery is attainable. The major uncertainty in estimating reserve potential is thickness of the ore zone.

Grade of drill hole intersections was determined by cutting all assays above 0.10 oz Au to 0.05-0.08 oz Au and by assigning a grade of 0.05-0.06 oz Au for drill hole intervals in stopes, the latter a conservative approach to grade but a reasonable way of getting an estimate of true thickness for a reserve estimate. Cutoff grade was not established with intersections chosen at a point where assays continuously exceeded 0.01-0.02 oz Au.

Tucson Office recommends a $250,000 expenditure for 10,000 ft. of RC drilling, 1,200 ft. of diamond drilling for metallurgical sampling and to twin RC holes for check purposes, column leach tests, underground surveying, and land payments. If you agree, please obtain the necessary approvals and return the attached summary to the Exploration Department.

F. T. Graybeal

F. T. Graybeal

FTG:mc
Att.

FORM 302-MB (9/79)

New York No. 0444-02

APPLICATION FOR SUPPLEMENTAL EXPLORATION APPROPRIATION

April 19, 1989 Originating Office Tucson

Application is hereby made for supplemental Appropriation to cover cost, in excess of original estimate, of work authorized by New York.

No. EA-0444-01 Yarnell Project, Yavapai County, AZ

Present total Estimated Cost (Form 302-MA attached)	$340,000
Amount previously authorized (date 3/1/89 & 1/25/89)	$ 90,000
Balance for which Authorization is now requested	$ 250,000

ADDITIONAL WORK CONTEMPLATED:

10,000 feet of reverse circulation drilling
1200 feet of diamond drilling
Column leach tests
Mapping and surveying
Land payments

EXPLANATION OF INCREASED COST:

Initial drill program of 3030 feet in nine holes returned encouraging gold intercepts that may be amenable to an open-pit operation. Proposed drilling will test for extensions of mineralization on strike and test within and down dip of gold zone discovered in initial drilling.

Reviewed by C. L. Snow (ACC'T. MGR. OR CHIEF ACC'N'T.)

Approved by R. J. O'Keefe (CONTROLLER)

Account Chargeable to Exploration Exp (TO BE FILLED IN BY CONTROLLER)

Recommended by W. L. Kotz (SUPERVISOR)

Approved by F. T. Stanfield (VICE PRESIDENT)

Approved by Advisory Committee

MAY 25 1989

T. C. O.

Approved by Board of Directors

SECRETARY

PRINTED IN U.S.A.

Signed 6/20/
w/ corrections.

WESTERN AIR MAPS, INC.

P.O. BOX 14988 • LENEXA, KANSAS 66215 • (913) 888-5266

Reply To: 11221 N. 28th Drive, Suite E-104 • Phoenix, AZ 85029

(602) 866-7391 • FAX (602) 866-0826

June 2, 1989

ASARCO, Inc.
P.O. Box 5747
Tucson, AZ 85703

ASARCO Incorporated

JUN 1 4 1989

SW Exploration

Attn: Mr. Jim Sell

Gentlemen:

Per your request for same, Western Air Maps is pleased to present the following proposal for aerial photography and photogrammetric services.

You, as our potential customer, have indicated the following use for Western Air Maps' services:

Planning and Studies

Our proposal includes the enclosed general terms and conditions which form an integral part of this offer.

Western Air Maps, Inc. shall furnish all labor and materials necessary to provide the following services:

I. AERIAL PHOTOGRAPHY

Obtain new color aerial photography of 12 square mile area near Yarnell, AZ suitable to generate 5' contours at a later date, as required.

II. PHOTOGRAPHIC PRODUCTS

Prepare one set of 9"x9" contact prints

Prepare one 1"=200'± color enlargements of each of twelve sections and 1"=100'± color enlargement of SW quarter of Section 14.

III. SURVEY SERVICES

Target corners or points near corners of 12 sections plus claim corners and establish horizonal and vertical control required for mapping.

COMPLETE PHOTOGRAMMETRY FOR BETTER ENGINEERING

IV. PHOTOGRAMMETRIC SERVICES

A. Topographic Digitizing

Digitize topographic data at a scale of 1"=100' showing 5' contours ~~of SW quarter~~ of Section 14 and 1"=200' showing 5' or 10' contours of all of Section 14.

B. Hardcopy Prints

Prepare ink on mylar hardcopy sheets at a scale of 1"=100' showing 5' contours of SW quarter of Section 14 and 1"=200' of all of Section 14.

V. ITEMS TO BE DELIVERED

One set of contact prints

One set of 1"=200'± color enlargements of 12 sections and 1"=100' color enlargement of SW quarter Section 14.

One set of 1"=100' hardcopy map with 5' contours of ~~SW 1/4~~ of Section 14 and 1"=200' hardcopy of entire Section 14.

One floppy diskette with x, y and z coordinates in ASCII format.

VI. DELIVERY SCHEDULE

To be mutually agreed upon at a later date.

VII. EXCEPTIONS TO NATIONAL MAP ACCURACY STANDARDS

None.

The above services shall be performed in accordance with the enclosed specifications which shall be considered an integral part of this offer.

Our fee for the proposed services shall be as follows:

Aerial Photography & Contact Prints	$1,150.00
Color Enlargements	1,280.00
Targets & Control Surveys of SW 1/4 Section 14	6,000.00
Topographic Mapping - SW 1/4 Section 14	2,770.00
Total Fee	$11,200.00

Western Air Maps appreciates the opportunity of submitting this proposal. If it is acceptable to you, please sign, date and return this original to Western Air Maps and keep a copy for your records.

Sincerely,

WESTERN AIR MAPS, INC.

By: Frank Deal

Frank Deal
Client Consultant

ACCEPTED AND APPROVED

Name Mark Miller

Title Project Geologist - Yarnell

Date 5/10/89

JDS

WESTERN AIR MAPS, INC.

P.O. BOX 14988 • LENEXA, KANSAS 66215 • (913) 888-5266

Reply To: 11221 N. 28th Drive, Suite E-10

(602) 866-7391 • FA

MAW
We don't need a 1" = 200' ± color enlargement of ALL 12 sections, at this time. Only the main area please.
JDS
PS- Not planning $1280 perhaps in near future JDS

June 2, 1989

ASARCO, Inc.
P.O. Box 5747
Tucson, AZ 85703

Attn: Mr. Jim Sell

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III. SURVEY SERVICES

Target corners or points near corners of 12 sections plus claim corners and establish horizonal and vertical control required for mapping.

COMPLETE PHOTOGRAMMETRY FOR BETTER ENGINEERING

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Digitize topographic data at a scale of 1"=100' showing 5' contours of SW quarter of Section 14 and 1"=200' showing 5' or 10' contours of all of Section 14.

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Prepare ink on mylar hardcopy sheets at a scale of 1"=100' showing 5' contours of SW quarter of Section 14 and 1"=200' of all of Section 14.

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One set of 1"=100' hardcopy map with 5' contours of SW 1/4 of Section 14 and 1"=200' hardcopy of entire Section 14.

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Total Fee	$11,200.00

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Sincerely,

WESTERN AIR MAPS, INC.

By: Frank Deal

Frank Deal
Client Consultant

ACCEPTED AND APPROVED

Name _____

Title _____

Date _____

ASARCO

Exploration Department
Western USA

JDS

June 2, 1989

J.D. Sell

Yarnell Drilling

My opinion is to drill forty feet below the open stopes with rotary bit. As you have stated -- put on tricone bit as soon as hit open stope.

It is important that the width of open stope and thickness of muck (broken ~~lode~~ rock in stope) be recorded.

WLK:mek

W. L. Kurtz

cc: MAHuella - NOTE

6/1/89

FROM: W. L. KURTZ

TO: JD Sell

, erial photograph

make sure that one picture is centered on the present thought center of the ore body (i.e. ~~that~~ west of Yarnell Hill dike)

ASARCO

Southwestern Exploration Division

JDS

June 2, 1989

M.A. Miller/W.D. Gay

Aerial Photography
Yarnell Project
Yavapai County, AZ

As verbally stated to you, Asarco needs color photos of sections 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, and 27 with the Yarnell drilling centered in the area, for ultimate topographic coverage.

On Figure One attached, note the outline for which we desire the 1st topographic map at a scale of 1 inch equals 200 feet, with the contour interval of 10 feet. This is approximately a mile square.

The flight lines and spacing of lines should be adjusted accordingly, with the center of the center photo essentially on the "dish" site near the topographic high of the project area.

Asarco also wants a single photo for making contact prints which will cover this same area. The flight elevation would be different, I'm sure, than for the coverage for the topographis base construction.

James D. Sell

James D. Sell

JDS:mek
Att.

cc: W.L. Kurtz

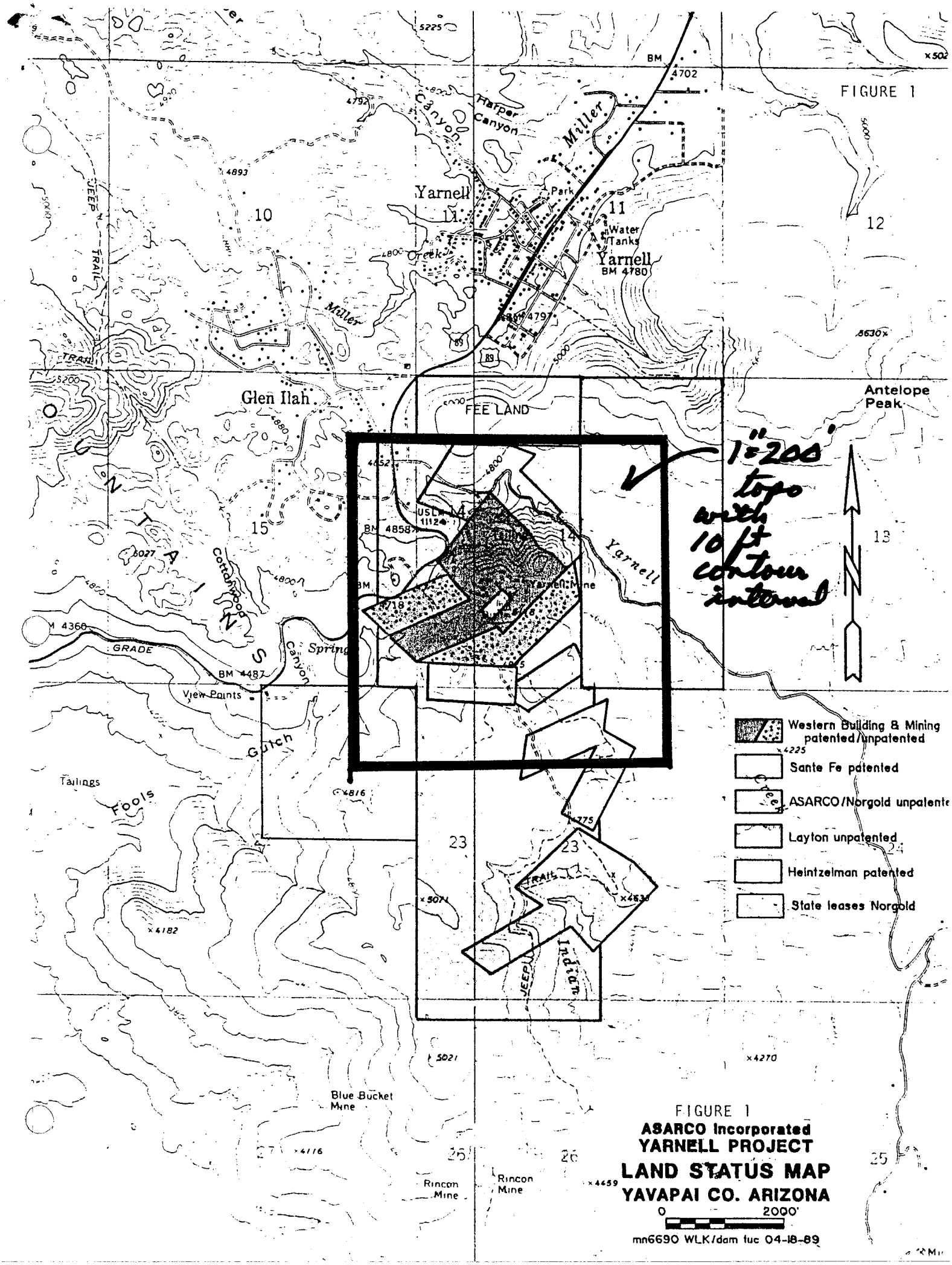

FIGURE 1
ASARCO Incorporated
YARNELL PROJECT
LAND STATUS MAP
YAVAPAI CO. ARIZONA

mn6690 WLK/dam fuc 04-18-89

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
PHOENIX DISTRICT OFFICE
2015 WEST DEER VALLEY ROAD
PHOENIX, ARIZONA 85027

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

3809 (027)
MN 89-L-36

June 2, 1989

Mr. Mark Miller
ASARCO, Inc.
P.O. Box 5747
Tucson, Arizona 85703

Dear Mr. Miller:

This will acknowledge receipt and filing of your Notice(s) of Intent to conduct mining operations on the following:

Pennsylvania No. 1 (AMC No. 134462) claim located in Township 10 N., Range 5 W., section 14.

Acceptance of this notice will not now, nor in the future, serve as a determination of the ownership or the validity of the mining claims cited in this notice.

I would like to stress that portion of the 3809 Surface Management Regulations which requires that you reclaim the land and to take reasonable measures to prevent unnecessary or undue degradation of the federal lands during your operations. (See enclosed stipulations).

Water is a very limited resource in Arizona, making it necessary to record and regulate its use. All claimants or operators who plan to drill, use, store or divert water are required under Arizona Statutes to secure a permit from the Arizona Department of Water Resources prior to drilling or usage of water. The Department may be reached by telephone at (602) 542-1554. Their address is 15 South 15th Avenue, Phoenix, Arizona 85007.

If you have any questions, please contact Hank Molz or Bob Fisk of this office at (602) 863-4464.

Thank you for submitting this notice.

Sincerely,

Frank E. Daniels

for Carole K. Hamilton
Area Manager
Lower Gila Resource Area

ASARCO Incorporated
JUN 5 1989
SW Exploration

Enclosure

cc: J.D. Sell
M.A. Miller (Yarnell)

STANDARD OPERATING PROCEDURES
for
All Mining Operations Conducted Under a Mining Notice

Except for the work as listed, all other mineral-related work conducted under a mining notice will be reclaimed within one year and prior to beginning any work under a new mining notice.:

(a) Roads needed for the continuation of mineral-related exploratory operation (see stipulation No. 1).

(b) Work to the extent necessary to preserve evidence of mineralization.

GUIDELINES for OPERATORS

1. Roads -- Access will not exceed 12 feet in width and shall follow natural contours where practicable. The Authorized Officer will be notified for any exception. After the road's intended use has been served, measures should be taken to reshape the road area, including pulling the road berms, and taking measures to control water runoff and soil erosion.

2. Trenching - Where there is no evidence of mineralization, the soil excavated should be returned to the trench and the surface reshaped.

3. Exploratory Drilling- In most cases, a Notice of Intent to drill will need to be obtained from the Arizona Department of Water Resources (602) 542-1554.

Where water is encountered, the above-mentioned Department will need to be notified as will the Phoenix District BLM.

Immediately upon completion of drilling, the operator will comply with the following:

a. Surface Cap - Each drill hole is to be completely filled to the collar of the hole or securely capped at a minimum depth of two (2) feet below either the original land surface or the collar of the hole, whichever is at the lower elevation. If capped, the cap is to be made of concrete or other material satisfactory for such capping. The hole shall be backfilled above the cap to the original land surface.

b. The site around the hole must be cleaned up and surplus cuttings leveled.

4. Native Vegetation -- Where possible, major vegetation, such as Saguaro cacti and palo verde trees will be avoided.

5. Archaeological -- If cultural resources are encountered, the operator shall immediately suspend operations and report findings to the BLM Phoenix District Office.

6. Wildlife -- If desert tortoise are encountered, the operator will remove the tortoise from the operations area.

7. Notification --- The operator will notify the Authorized Officer upon completion of work and reclamation.

ASARCO

Exploration Department
Western USA

June 2, 1989

Don Crowell
Tom Henderson
Tucson Office

Yarnell Project

As you know, we have completed several bottle roll tests on drill cuttings from the Yarnell gold project.

We now plan to provide 2.5 inch diamond drill core as feed for at least four column leach tests in 6 inch x 4 foot columns. This testing should be completed by the end of September 1989.

Our question to you is: will this provide a sufficient test to design production heaps? If not, what additional work do you believe is absolutely necessary? Our target date for mine development is January 1990.

WLK

W. L. Kurtz

WLK:mek

cc: R.L. Brown
D.F. Skidmore
J.D. Sell
M.A. Miller

6/6/89
MBM to confirm with DC as to what type of intervals they want after the June drilling is integrated.

JDS Accounting

METCON Research Inc.

1844 W. Grant Road, Suite 106
Tucson, Arizona 85745

Tel: (602) 623-1327
Telex 284623 KDE UR

30 May 1989
Invoice #8682

ASARCO, SWED
P.O. Box 5747
Tucson, AZ 85703

Attention: Mr. James D. Sell

ASARCO Incorporated
JUN 2 1989
SW Exploration

INVOICE

This invoice covers costs associated with test work conducted on three samples from project No. YAR. The testing involved cyanide leach for 24 and 72 hours. A report detailing the results has been submitted to your attention under separate cover. Charges are as follows:

LABORATORY SERVICES:

(6)	Bottle roll leach tests @ $250.00 ea.	$ 1,500.00
	TOTAL THIS INVOICE	$ 1,500.00

Please make check payable to Metcon Research Inc.

Thank you,

Joseph M Keane

Joseph M. Keane, P.E.
President

JMK:rs

APPROVED FOR PAYMENT
By: James D. Sell
(Signature)
General Project
EA-0444

Yamell Project

~~Thm P.~~ 6/2/89 Western

Frank Beal Aerial Color $ 1150

Western Clin Maps Color ~~permatec~~ print 1280

Real Est. topo SW print 1970

~~[illegible]~~ $4400

panel contractor 5500 not to exceed $

$9900 total.

Bill:

Mr. Frank Beal called in the above numbers. I told him you would stop by & see him between 10-11 AM on Monday 6/5/89

[illegible]

JDS
6/2/89

RLB/FTG
JDS

Meteor 24-72 hr
Yarnell Proj.
Yavapai Co, AZ

Attached is a copy of the latest meteor results on the longer lead time.
Note that the indications are still good for hog-lead.
Other parameters will be addressed when core is available in July.

James D. Sell

Attached
cc: WHHunt
MBMiller

METCON Research Inc.

1844 W. Grant Road, Suite 106
Tucson, Arizona 85745

Tel: (602) 623-1327
Telex 284623 KDE UR

24 May 1989
EI-039-89

ASARCO, SWED
P.O. Box 5747
Tucson, AZ 85703

ASARCO Incorporated
JUN 2 1989
SW Exploration

Attention: Mr. James D. Sell

Subject: Project No. YAR
Preliminary Cyanide Leach Tests

Dear Mr. Sell:

The following letter report is submitted to detail recent test work performed on several interval samples obtained from Skyline Labs.

1.0 INTRODUCTION

On 14 April 1989 a suite of 3 interval samples labeled YM-2, YM-5 and YM-8 were received at Metcon Research Inc. Two series of preliminary bottle roll leach tests for 24 and 72 hours leach time respectively were conducted on these samples. The procedures employed and the results obtained during this investigation are outlined herein.

2.0 SUMMARY

The metallurgical data developed in the course of this study reveals that the interval samples tested contained gold values ranging from 0.040 to 0.052 ounces per ton of ore, with only a small amount of silver detected in sample YM-8. Samples YM-2 and YM-5 had little or no silver.

The initial series of tests performed in these samples indicated that gold recoveries ranging from approximately 42 to 70 percent could be obtained from this ore. Higher gold recoveries were achieved on these samples on a second series of tests conducted for 72 hours. The precious metals recovery was monitored at 24 hours intervals during this second series of tests. The leach test results indicated that a 70 to 80 percent gold recovery was achieved in these samples. The cyanide and lime consumptions averaged approximately 0.4 and 4 pounds per ton respectively.

The results obtained from this study indicate that a 24 hour leach retention time is suitable to achieve an optimum recovery on this ore. This study provided evidence that the gold presently in the ore is fine and readily goes into solution.

3.0 PROCEDURES

The procedures utilized for sample preparation and metallurgical testing are described as follows:

3.1 A suite of samples labeled YM-2, YM-5 and YM-8 were weighed and logged in. The samples were then crushed to minus 10 mesh, blended and representative samples were split out for testing and gold and silver assay.

3.2 A 500 gram portion of each sample was combined with 1000 ml of distilled water and 1.0 gram of lime.

3.3 The slurry was agitated on a bottle roll apparatus until the pH stabilized, then 1.0 gram of sodium cyanide was added. Addition of lime continued throughout the leach period to maintain a pH above 11.

3.4 Cyanide leaching was conducted for 24 to 72 hours. At the end of leaching, solids and liquids were separated by filtration.

3.5 Cyanide and lime consumptions were determined by titration of the combined filtrate and wash liquors.

3.6 Leached residue and pregnant solution samples were assayed for gold and silver and metallurgical calculations were performed.

4.0 RESULTS AND DISCUSSION

The results obtained during this study are discussed in the following paragraphs.

The precious metals extraction and reagent consumptions are shown in Tables 1 and 2 attached hereto.

Inspection of tabulated data indicates that an average gold recovery of 73.8 percent may be achieved in this ore by cyanidation of minus 10 mesh ore over a 72 hour leach period. Monitoring of recovery of precious metals at 24 hour intervals during leaching indicated that the overall recovery may actually be higher. In particular, samples YM-2 and YM-5 showed a 9 and 8 percent higher gold recovery respectively. Care should be exercised when evaluating these results, given the relatively low grade of the samples tested, variability in analytical data could cause wide variations when final metal distributions are calculated. Round-off error may also contribute to variation in the final results.

Further testing is strongly recommended to investigate the amenability of this ore to a heap leach process. It appears from the results obtained from these tests that the ore samples tested could be processed by a heap leaching technique. The low reagent consumptions exhibited indicate the absence of acidic components in the ore which could cause a high cyanide consumption. The cyanide consumptions observed ranged from 0.2 to 0.65 pounds per ton. The lime consumption averaged approximately 4.0 pounds per ton.

We appreciate being given the opportunity to provide technical assistance on this important project. We await your comments on this report and should you have any questions in regards to this study, please do not hesitate to contact us.

Very truly yours,

Eugenio Iasillo

Eugenio Iasillo
Process Engineer

EI:rs
cc: Mark A. Miller
Tom Henderson

ASARCO SWED.

TABLE. 1 BOTTLE ROLL LEACH TESTS

SUMMARY OF RESULTS

Products 24 hr.leach	WT/Vol	Assays (OPT) Au	Assays (OPT) Ag	Content Au	Content Ag	% Recovery Au	% Recovery Ag	Consumption of Reagents(lb/ton) NaCN	Consumption of Reagents(lb/ton) CaO
YM2(145-150)									
Preg+Wash	1360	0.008	0.002	0.022	0.01	42.19	52.26	0.47	4.78
Residue	497	0.030	0.005	0.030	0.01	57.81	47.74		
Calc Head		0.052	0.010						
AssayHead		0.049	<0.05						
YM5(290-295)									
Preg+Wash	1370	0.013	0.002	0.036	0.01	58.81	52.34	0.22	4.64
Residue	499	0.025	0.005	0.025	0.01	41.19	47.66		
Calc Head		0.061	0.010						
AssayHead		0.052	<0.05						
YM8(230-235)									
Preg+Wash	1320	0.013	0.002	0.035	0.01	69.80	1.17	0.31	4.73
Residue	495	0.015	0.450	0.015	0.45	30.20	98.83		
Calc Head		0.050	0.455						
Assayhead		0.040	<0.05						
AVERAGE						56.93	35.26	0.33	4.72

TABLE. 2 BOTTLE ROLL LEACH TESTS

SUMMARY OF RESULTS

Products 72 hr.leach	WT/Vol	Assays (OPT) Au	Assays (OPT) Ag	Content Au	Content Ag	% Recovery Au	% Recovery Ag	Consumption of Reagents(lb/ton) NaCN	Consumption of Reagents(lb/ton) CaO
YM2(145-150)									
Preg+Wash	1420	0.009	0.002	0.026	0.01	70.04	53.33	0.65	3.74
Residue	497	0.011	0.005	0.011	0.01	29.96	46.67		
Calc Head		0.037	0.011						
AssayHead		0.049	<0.05						
YM5(290-295)									
Preg+Wash	1470	0.014	0.002	0.043	0.01	68.01	54.85	0.55	3.77
Residue	484	0.020	0.005	0.020	0.01	31.99	45.15		
Calc Head		0.063	0.011						
AssayHead		0.052	<0.05						
YM8(230-235)									
Preg+Wash	1420	0.014	0.020	0.040	0.06	83.39	36.46	0.66	3.70
Residue	495	0.008	0.100	0.008	0.10	16.61	63.54		
Calc Head		0.048	0.157						
Assayhead		0.040	<0.05						
AVERAGE						73.81	48.21	0.62	3.74

METCON RESEARCH INC.
1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 1

PROJECT No: M-175

FEED: YM - 2 (145-150)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: SCOPING LEACH TEST

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1360	0.008	0.00	0.373	0.09	42.19	52.26
48 hrs.							
72 hrs.							
Leach Res	497	0.030	0.01	0.511	0.085	57.81	47.74
Calc.Head	500	0.052	0.01				
HeadAssay		0.049	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		3.00		12.2
4 hrs.	1000					
8 hrs.	1000					
24 hrs.	1360	1.30	0.47	0.46	4.78	11.6
48 hrs.						
72 hrs.						

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BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 2

PROJECT No: M-175

FEED: YM - 5 (290-295)A

CONDUCTED BY: E.I./A.M.

OBJECTIVE: SCOPING LEACH TEST

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	CONTENT (mg)	DISTRIBUTION %	DISTRIBUTION %
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
	1000						
	1000						
	1000						
24 hrs.	1370	0.013	0.00	0.611	0.09	58.81	52.34
48 hrs.							
72 hrs.							
Leach Res	499	0.025	0.01	0.428	0.086	41.19	47.66
Calc.Head	500	0.061	0.01				
HeadAssay		0.052	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
2 hrs.	1000	2.00		3.00		12.1
4 hrs.	1000					
8 hrs.	1000					
24 hrs.	1370	1.38	0.22	0.50	4.64	11.7
48 hrs.						
72 hrs.						

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Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 3

PROJECT No: M-175

FEED: YM - 8 (230-235)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: SCOPING LEACH TEST

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1320	0.013	0.00	0.588	0.09	69.80	1.17
48 hrs.							
72 hrs.							
Leach Res	495	0.015	0.45	0.255	7.637	30.20	98.83
Calc.Head	500	0.049	0.45				
HeadAssay		0.040	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		3.00		12.2
4 hrs.	1000					
8 hrs.	1000					
24 hrs.	1320	1.40	0.31	0.50	4.73	11.5
48 hrs.						
72 hrs.						

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1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/23/89

TEST No.: 4

PROJECT No: M-175

FEED: YM - 2 (145-150)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	CONTENT (mg)	DISTRIBUTION %	DISTRIBUTION %
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.015	0.00	0.514	0.07	79.59	7.20
48 hrs.	980	0.015	0.00	0.514	0.07	79.59	7.20
72 hrs.	1420	0.009	0.00	0.459	0.10	70.99	10.51
Leach Res	497	0.011	0.05	0.187	0.852	29.01	89.49
Calc.Head	500	0.038	0.06				
HeadAssay		0.049	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		12.0
4 hrs.	1000					11.9
8 hrs.	1000					11.2
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1420	1.18	0.65	0.10	3.74	10.8

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BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/19/89

TEST No.: 5

PROJECT No: M-175

FEED: YM - 5 (290-295)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	(mg)	DISTRIBUTION %	%
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.024	0.00	0.823	0.07	76.97	7.35
48 hrs.	980	0.022	0.00	0.756	0.07	70.69	7.35
72 hrs.	1470	0.014	0.00	0.737	0.10	68.95	11.09
Leach Res	484	0.020	0.05	0.332	0.830	31.05	88.91
Calc.Head	500	0.062	0.05				
HeadAssay		0.052	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		11.5
4 hrs.	1000					11.5
8 hrs.	1000					11.3
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1470	1.18	0.55	0.12	3.77	10.8

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1844 West Grant Road., Suite 106
Tucson, Arizona 85745
Phone: (602) 623-1327

BOTTLE ROLL NaCN LEACH TEST

CLIENT: ASARCO

DATE: 05/19/89

TEST No.: 6

PROJECT No: M-175

FEED: YM - 8 (230-235)

CONDUCTED BY: E.I./A.M.

OBJECTIVE: LEACH KINETICS

SAMPLE DESCRIP.	METALL. PRODUCT	ASSAYS (Oz/ton)		CONTENT (mg)	CONTENT (mg)	DISTRIBUTION %	DISTRIBUTION %
SOLUTIONS	gram/ml	Au	Ag	Au	Ag	Au	Ag
.....	.....	.....	.....	.....	.....	.....	.....
	1000						
	1000						
	1000						
24 hrs.	1000	0.021	0.02	0.720	0.51	85.09	20.98
48 hrs.	980	0.021	0.02	0.720	0.68	85.09	27.83
72 hrs.	1420	0.014	0.02	0.710	0.75	83.95	30.77
Leach Res	495	0.008	0.10	0.136	1.697	16.05	69.23
Calc.Head	500	0.049	0.14				
HeadAssay		0.040	<0.05				

SAMPLE DESCRIP.	METALL. PRODUCT	NaCN lb/ton	NaCN lb/ton	CaO lb/ton	CaO lb/ton	SOLUTION pH
Preg+Wash	mls	sol.conc.	consump.	sol.conc.	consump.	
.....	.....	.....	.....	.....	.....	.....
2 hrs.	1000	2.00		2.00		11.5
4 hrs.	1000					11.5
8 hrs.	1000					11.3
24 hrs.	1000					11.2
48 hrs.	980					10.8
72 hrs.	1420	1.18	0.66	0.12	3.70	10.8

FILE

AZ Daily Star June 3, 1989

[redacted]

cc: LULL
JDS
MAM

Yarnell is a quiet and friendly village in the Weaver Mountains, overlooked by Antelope Peak. Seventy eight miles from Phoenix, 25 miles north of Wickenburg and 33 miles south of Prescott, it is far from city pollution but convenient to metropolitan areas.

Water for Yarnell and Peeples Valley comes from deep, natural spring-fed wells and is approved by the State Board of Health. No chemicals are added.

Scenery consists of mountains which surround the 4,782-foot elevation of the main town. The area abounds in large boulders strewn in casual disarray, with oak trees, chaparral and cacti. A scenic overlook, on the highway just south of town, shows Wickenburg, Congress, gold mines, and the Ghost towns of Octave and Stanton— a breathtaking expanse 2,500 feet below!

Peeples Valley, three miles from Yarnell, is rolling pastureland with horses and cattle grazing among the giant Cottonwood trees and wandering brooks.

Wildlife abounds in the natural surroundings. Deer, Javelina, Rabbit, Fox and Raccoons are to be seen as you walk or hike on the roads or trails of the area. Also you can enjoy the beauty of an abundance of birds, including Quail, Doves, Phainopeplas, Cardinals, Redwing Blackbirds, Orioles Bluejays, Robins and many others.

Climate is a big attraction for the residents and visitors. Cool summers result from the desert breeze meeting the mountain air. With the mild winters, Yarnell can be enjoyed on a year-round basis. Many people from Phoenix and other desert areas find this an ideal place for week-end and summer homes.

Businesses are here to serve the residents and visitors. They include two grocery stores, a TV service with video rentals, a Valley National Bank, a hardware store, a building supply store, motels, ice cream and eating establishments, beauty salons, antique shops, service stations, bars, gift shops, feed stores and storage rentals.

There are two realty firms, a cleaning service, rockwork artisans, carpenters and painters. Artists and sculptors have their products for sale.

Services include a volunteer fire department, a community hall for social activities run by the local women's organization (Wranglerettes), a senior service center, a medical clinic, a park and several churches, a chamber of commerce, scouts, post office, library, American Legion and VFW. There is an excellent elementary school for kindergarten through sixth grade. Middle and high School students are bused to Wickenburg.

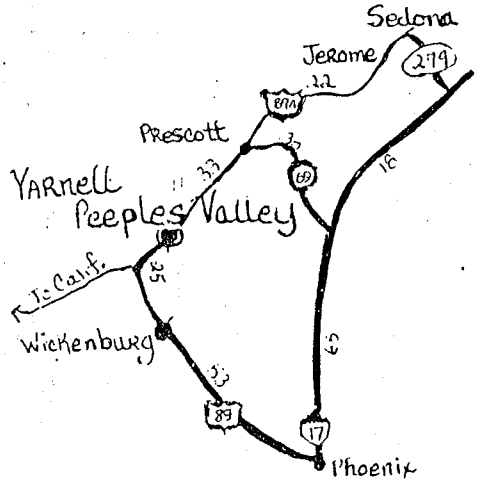
Yarnell Daze is an annual event held on a weekend near the end of May. Residents and visitors alike enjoy a parade, food, crafts, entertainment, and art. This is a favorite time for antique car owners to show off their hobbies. A flea market is fun for all.

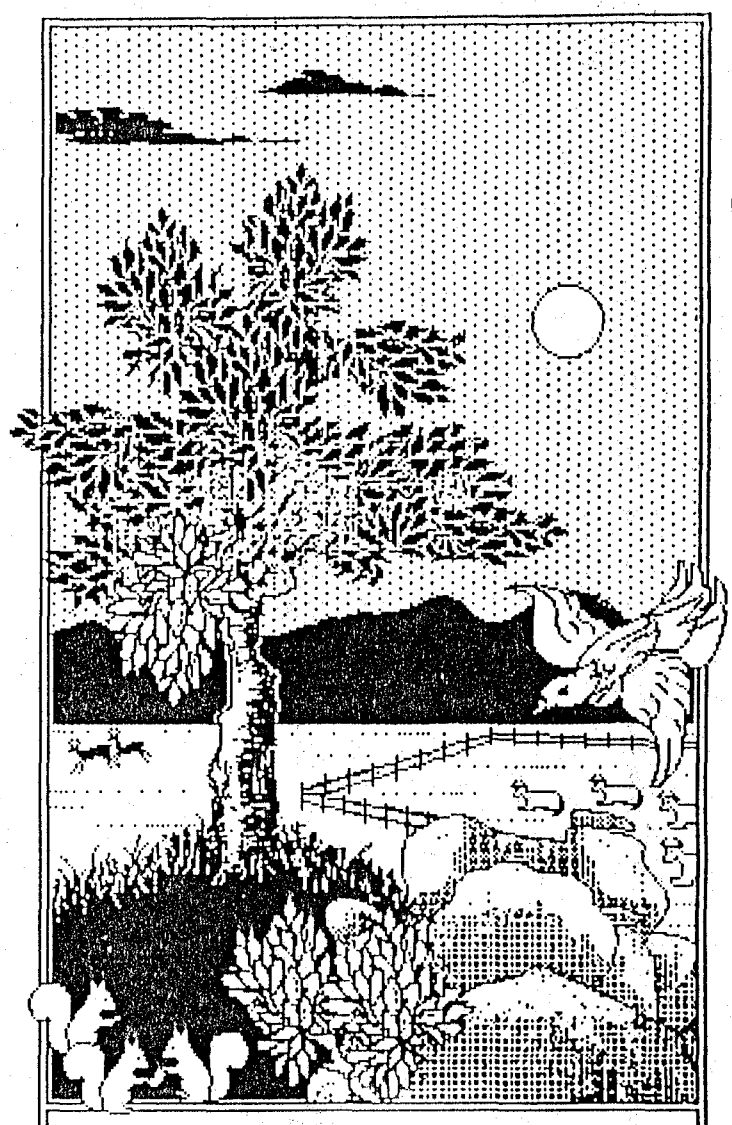
History of the area reveals a long interest in the search for gold. In 1863 a group of prospectors headed by Abraham Harlow Peeples, deserted California's waning goldrush to search for new bonanzas in the little known

territory to the east. Days later, Peeples, riding in the lead with Pauline Weaver, chased a herd of Antelope that fled up a watered ravine to a peak, which he named Antelope Peak. In 1893 a prospector named Harrison Yarnell struck gold on one of Antelope's sister peaks.

The Map below shows the access by good year round, state-maintained, highways. For those who remember the steep climb up Yarnell Hill in the old days, there are now excellent and safe one-way roads up and down this scenic route. The surrounding areas of Skull Valley, Kirkland and Hillside are easily accessible by good highways. For those who like a rustic trip, there are gravel roads to Wagner and Crown King. Also there is a dirt road for those with 4 wheel drive off-road vehicles to drive down into the gold mining country of Octave and Stanton.

The map also shows a scenic route which takes in Phoenix, Prescott and Sedona as well as Wickenburg and Yarnell. Starting at any point on this scenic circle, the round trip can be made in a single day.





YARNELL
PEEPLES VALLEY
CHAMBER OF COMMERCE

Where the Desert Breeze and Mountain air meet, creating the world's best Year around Climate.

YARNELL/PEEPLES VALLEY
CHAMBER OF COMMERCE
P.O. Box 275
Yarnell, AZ 85362

JDS

ASARCO

Southwestern Exploration Division

June 5, 1989

F.T. Graybeal/R.L. Brown

Flow-Chart
Task/Month
Yarnell Project
Yavapai Co., AZ

As you have requested, I submit a Preliminary Edition of the Yarnell Project Flow Chart.

When you and others have completed the critique, I shall have the chart drafted and redistributed to all involved.

James D. Sell

James D. Sell

JDS:mek
Att.

cc: W.L. Kurtz
M.A. Miller
W.D. Gay
SWMD - T. Scartaccini/D.Skidmore
MBD - D. Crowell/T. Henderson

YARNELL PROJECT EA-0444

AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	1990 JAN
Project Supervisor, Geologist	MAM	XXXX	X X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Geol. Mapping/Alteration Study - Claim Area	MAM	XXXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Mapping/Sampling - Outside Claim Area	MAM	X	XXXX						
Claim Staking Anomalous Areas	MAM-WDG	X	XXXX						
Complete Leasing of State Sec. 22	MAM-WDG	XXXX							
~~Monthly Reports~~	~~MAM~~	~~XXXX~~	~~X X~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~
Drill Hole & Cross Sections, etc. Reports	MAM	XXXX	XXXX	XX					
Assay Reports	MAM	XXXX	X X	XX					
Final Drilling/Geology/Ore Reserve Est. Rpt.	MAM			XX					
~~Vacation (July 7-21)~~			~~XX~~						
Water Supply Evaluation/Recommendation	MAM				XXXX				
Rotary Drilling, incl. Site Prep. 25 holes	SPD	XXXX	XXXX						
Core Drilling incl. Site Prep. 4 holes	SPD		XXXX						
Drill Hole Location Survey	WDG	XXXX	XXXX	X					
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXX	XXXX	XXXX
Claim Survey, Clean-up	WDG	XX							
Aerial Survey Control Points	WDG	XX							
Photography, Aerial	WDG-Contractor		X						
Topographic Map, Mine Area	WDG-Contractor		XXX						
Underground Surveying	WDG		X	XXXX					
Underground Sampling	WDG		X	XXXX					
Local Demography (Yarnell Govt./Populas)	Consultant	XX	XX			XX			
Column Leach Tests	MBD		XX	XXXX	XXXX				
Metallurgicla Reports/Recommendations	MBD					XXXX			
Re-Tuned ROI Preliminary	SWMD	XXXX							
Ore Reserve	SWMD			XXXX					
Feasibility	SWMD					XXXX			
Mine Planning/Development	SWMD					XXXX	XXXX	XXXX	XXXX
Permit, Drilling - as needed	MAM	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Base Line Water Study	WDG	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Permits - Establish Guidelines/Time Tables	SWMD	XX							
Permits for Mining/Metallurgy Operations	SWMD			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Move Microwave Towers	WDG						XXXX	XXXX	
Decision Point for Guarantee $100K Payment					X				
Payment to Western Building - $100K								X	
Payment to Norgold		X			X			X	

*Note: MAM, Mark A. Miller, Geologist
SPD, Steven P. Duncan, Technician
WDG, William D. Gay, Land Engineer
SWMD, Southwestern Mining Dept.
MBD, Mineral Beneficiation Dept.

J.D. Sell 6/2/89

ASARCO

Southwestern Exploration Division

June 6, 1989

JDS — no data to Norgold until agreement signed + sealed
FAHM

W.L. Kurtz

Norgold Visit-to-be
Yarnell Project
Yavapai County, AZ

I will tell Moat that

Mark Miller reported that Moat and Directors will visit the Yarnell Project on Tuesday June 20.

I told Mark that the least he could say and show Norgold, other than what has already been sent to them, the better for the project.

all request come to you or me and NOT Miller

James D. Sell

JDS:mek

James D. Sell

cc: R.L. Brown/F.T. Graybeal
D.F. Skidmore

P.S. (WLK only)

Perhaps we should pull Mark off the project during that time, along with all his maps, assays, etc.

Jim

JDS

6/6/89

FROM: J. D. SELL

TO: DF Shedmore
DE Crowell

Yarnell Project

Attached is a preliminary flow sheet of activities for the Yarnell Project.

Please look over your areas of influence and refine dates/activities, & add others as you see fit, before I go to press next week.

Thanks. Jim

cc: W L Kurtz

YARNELL PROJECT EA-0444

AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	1990 JAN
Project Supervisor, Geologist	MAM	XXXX	X X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Geol. Mapping/Alteration Study - Claim Area	MAM	XXXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Mapping/Sampling - Outside Claim Area	MAM	X	X X						
Claim Staking Anomalous Areas	MAM-WDG	X	XXXX						
Complete Leasing of State Sec. 22	MAM-WDG	XXXX							
Monthly Reports	MAM	XXXX	X X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Drill Hole & Cross Sections, etc. Reports	MAM	XXXX	X X	XX					
Assay Reports	MAM	XXXX	X X	XX					
Final Drilling/Geology/Ore Reserve Est. Rpt.	MAM			XX					
Vacation (July 7-21)			XX						
Water Supply Evaluation/Recommendation	MAM				XXXX				
Rotary Drilling, incl. Site Prep. 25 holes	SPD	XXXX	XXXX						
Core Drilling incl. Site Prep. 4 holes	SPD		XXXX						
Drill Hole Location Survey	WDG	XXXX	XXXX	X					
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXX	XXXX	XXXX
Claim Survey, Clean-up	WDG	XX							
Aerial Survey Control Points	WDG	XX							
Photography, Aerial	WDG-Contractor		X						
Topographic Map, Mine Area	WDG-Contractor		XXX						
Underground Surveying	WDG		X	XXXX					
Underground Sampling	WDG		X	XXXX					
Local Demography (Yarnell Govt./Populas)	Consultant	XX	XX						
Column Leach Tests	MBD			XXXX	XXXX				
Metallurgicla Reports/Recommendations	MBD					XXXX			
Re-Tuned ROI Preliminary	SWMD	XXXX							
Ore Reserve	SWMD			XXXX					
Feasibility	SWMD					XXXX			
Mine Planning/Development	SWMD					XXXX	XXXX	XXXX	XXXX
Permit, Drilling - as needed	MAM	XXXX	X X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Base Line Water Study	WDG	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Permits - Establish Guidelines/Time Tables	SWMD	XX							
Permits for Mining/Metallurgy Operations	SWMD			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Move Microwave Towers	WDG						XXXX	XXXX	
Decision Point for Guarantee $100K Payment					X				
Payment to Western Building - $100K								X	
Payment to Norgold		X			X			X	

*Note: MAM, Mark A. Miller, Geologist
SPD, Steven P. Duncan, Technician
WDG, William D. Gay, Land Engineer
SWMD, Southwestern Mining Dept.
MBD, Mineral Beneficiation Dept.

J.D. Sell 6/2/89

LAW OFFICES
Evans, Kitchel & Jenckes, P.C.
2600 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004-3099
TELEPHONE (602) 234-2600

TO William L. Kurtz - Tucson, Arizona
FROM H. Barry Holt DATE 6/5/89
SUBJECT TELECOPY

WE WILL BE TRANSMITTING 7 PAGES INCLUDING THIS COVER SHEET.

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL (602) 240-2472.

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Please Fax to:
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JAMES R. KIENTON
BARRY J. DALE
RICHARD L. SALLQUIST
DAVID J. QUINETTE
BARBARA MCCONNELL BARRETT
STEVEN A. HIRSCH
JOHN J. FNIES
LINDA H. MILES
ANDREW H. FEDERMAN
JAY S. KRAMER
DEREK L. SORENSON
BRAD H. KEOGH
RICHARD LIEBERMAN
RENEE B. GERSMAN
JONATHAN W. RANDALL
ROBERT J. ITKIN
JAY A. ZWEIG
DONALD B. RONBOCK
H. BARRY HOLT
LEE H. STOREY
JOHN A. HINK
M. ELLEN RIDGE

*ADMITTED TO PRACTICE IN THE DISTRICT OF COLUMBIA AND UTAH

LAW OFFICES

Evans, Kitchel & Jenckes, P.C.

2600 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004-3099
(602) 234-2600

DENISON KITCHEL
JOHN F. BOLAND, JR.
OF COUNSEL

FACSIMILE 602-234-8856

SCOTTSDALE OFFICE
SUITE B-111
6991 EAST CAMELBACK ROAD
SCOTTSDALE, ARIZONA 85251-2467

TUCSON OFFICE
1 SOUTH CHURCH AVENUE
SUITE 630
TUCSON, ARIZONA 85701-1612

June 5, 1989

VIA TELECOPY

Mr. William L. Kurtz
Manager, U.S.A. Division
Western Exploration Division
ASARCO Incorporated
10150 N. 7th Avenue
P. O. Box 5747
Tucson, Arizona 85703

Re: Yarnell Project - Norgold Agreements, Exhibit A

Dear Mr. Kurtz:

At your request, we have prepared a revised Exhibit A for the Norgold Agreements. We included in the Exhibit the major exceptions to record title encountered during our title investigations. As you are aware from our letter of April 13, 1989, we have not investigated the titles of the Y-1 through Y-7, Rim Rock 1, Thunder Hill, Black Dike 1, Black Dike, Extension 5, and Kachina Doll 1 unpatented mining claims, the Alvarado Gold Mines property and the Santa Fe patented land.

As soon as you provide us with a dollar figure for Paragraph 8.4 of the Lease and Option Agreement, we will forward an execution copy to Norgold Resources (US) Inc.

? $5 million

Please let us know if you have any questions.

Sincerely,

H. Barry Holt

H. Barry Holt
EVANS, KITCHEL & JENCKES, P.C.

HBH:sau
Enclosures

cc: Mr. James L. Woods

Exhibit "A"

The following patented and unpatented lode mining claims situate in Sections 14, 15, 22 and 23, Township 10 North, Range 5 West, G&SRB&M, Weaver Mining District, Yavapai County, Arizona:

I. Patented Claims

1. The Juniper lode mining claim, mineral survey no. 1112, patent whereof is recorded in Book 36 of Deeds, pages 229 through 232.

Except for that portion of said Juniper claim conveyed by Warranty Deed recorded in Book 235, page 8 and described as follows:

> Commencing at corner No. 1 of said Juniper claim, thence North 44° 30' West along the 1-5 line of said claim 237.56 feet to the Point of Beginning for the description of the herein described tract; thence continuing along said 1-5 line 150.0 feet; thence North 44° 30' East parallel with the 5-4 line of said claim 500 feet; thence South 44° 30' East parallel with said 1-5 line 150 feet; thence South 44° 30' West parallel with said 5-4 line 500 feet to the Point of Beginning.

And Except for that portion of Juniper claim conveyed by Warranty Deeds recorded in Book 1265, page 694 and page 697 and described as follows:

> Commencing at the Northeasterly end of the Northwesterly side line of the parcel of land conveyed in Book 235, page 8; thence North 44° 30' East 75 feet along the Northeasterly prolongation of the Northwesterly side line of said parcel conveyed in Book 235, page 8; thence South 44° 30' East 70 feet along a line parallel with the Northeasterly end line of said parcel conveyed in Book 235, page 8; thence in a Southwesterly direction to a point on said Northeasterly end line that is South 44° 30' East 75 feet from the Point of Beginning for the herein described parcel of land; thence North 44° 30' West 75 feet along the Northeasterly end line of said parcel conveyed in Book 235, page 8 to the Point of Beginning.

2. The Edmond lode mining claim, mineral survey No. 1114, patent whereof is recorded in Book 36 of Deeds, pages 236 through 240.

3. The Edgar lode mining claim, mineral survey No. 1113, patent whereof is recorded in Book 36 of Deeds, pages 240 and 241.

4. The Triangle lode mining claim, mineral survey No. 1115, patent whereof is recorded in Book 36 of Deeds, pages 233 through 236.

Together with the following:

(a) The conditions and the stipulations set forth in the patents to the Subject Patented Mining Claims recorded in Book 36 of Deeds, page 229 through 243 and Book 43 of Deeds, pages 296 through 300.

(b) An easement dated December 13, 1939 and recorded January 4, 1940 in Book 176 of Deeds, Page 176, for a right-of-way to the Mountain States Telephone and Telegraph Company for the right, privilege and authority to construct, operate and maintain telephone and telegraph lines and poles over an undescribed portion of the Edmond and Triangle patented mining claims.

(c) An easement for ingress and egress purposes over an existing roadway as reserved in that Joint Tenancy Deed dated March 29, 1973 and recorded in Book 1207, Page 425. (Affects the Edmond patented lode mining claim).

(d) An easement for ingress and egress purposes over an existing roadway, thirty feet in width, reserved in that Joint Tenancy Deed dated October 14, 1974 and that Warranty Deed dated August 21, 1982, recorded respectively in Book 1375, Page 64 and Book 1485, Page 769. (Affects the Edgar patented lode mining claim).

(e) An easement for ingress and egress over the Edmond and Triangle patented lode mining claims from U.S. Highway No. 89 as set forth in Warranty Deed dated September 28, 1979 recorded in Book 1265, Pages 694 through 705. Said easement being twelve feet in width, 6 feet on each side of the center line described in said documents.

(f) The provisions of a Mining Agreement dated December 30, 1988 between Western Building and Mining Company, Inc. and Norgold Resources (U.S.), Inc.

II. Unpatented Claims

Claim Name	Date Located or Amended	Recorded Book	Recorded Page	Recorded Date	BLM Serial No.
Alvin J.	11/21/1975	991	423	11/21/75	AMC 33458
Amended	11/21/1975	996	261	1/2/76	AMC 33458
Kathryn A	11/21/1975	991	419	11/21/75	AMC 33459
Amended	11/21/1975	996	263	1/2/76	AMC 33459
Kathryn B	11/21/1975	991	421	11/21/75	AMC 33460
Amended	11/21/1975	996	265	1/2/76	AMC 33460
Pennsylvania No. 1	6/26/1981	1392	661	6/30/81	AMC 134462
Sun #1	9/9/1988	2079	476	9/13/88	AMC 288941
Sun #2	9/9/1988	2079	478	9/13/88	AMC 288942
Sun #3B	9/9/1988	2079	480	9/13/88	AMC 288943
Amended	10/25/1988	2091	499	10/26/88	AMC 288943
Sun #6B	9/9/1988	2079	486	9/13/88	AMC 288946
Amended	10/25/1988	2091	501	10/26/88	AMC 288946
Sun #7B	9/9/1988	2079	488	9/13/88	AMC 288947
Amended	10/25/1988	2091	503	10/26/88	AMC 288947
Sun #8	9/9/1988	2079	490	9/13/88	AMC 288948
Sun-8B	10/25/1988	2091	505	10/26/88	AMC 288948
Sun #9	9/9/1988	2079	492	9/13/88	AMC 288949
Sun #10	9/9/1988	2079	494	9/13/88	AMC 288950
Sun #11	9/9/1988	2079	496	9/13/88	AMC 288951
Sun #12	9/9/1988	2079	498	9/13/88	AMC 288952
Sun #13	9/9/1988	2079	500	9/13/88	AMC 288953
Sun #14	9/9/1988	2079	502	9/13/88	AMC 288954
Sun #15	9/9/1988	2079	504	9/13/88	AMC 288955

06029:00011:024894LT

The above unpatended claims are subject to the provisions of a Mining Agreement dated December 30, 1988 between Western Building and Mining Company, Inc. and Norgold Resources (U.S.), Inc.

Claim Name	Date Located or Amended	Recorded Book	Recorded Page	Recorded Date	BLM Serial No.
Y-1		2078	422/423		AMC 288934
Y-2		2078	424/425		AMC 288935
Y-3		2078	426/427		AMC 288936
Y-4		2078	428/429		AMC 288937
Y-5		2078	430/431		AMC 288938
Y-6		2078	432/433		AMC 288939
Y-7		2078	434/435		AMC 288940

OTHER PROPERTY THAT MAY BE ACQUIRED BY NORGOLD RESOURCES (US) INC.

I. Unpatented Claims

Claim Name	Date Located or Amended	Recorded Book	Recorded Page	Recorded Date	BLM Serial No.
Victoria #1	8/5/1974	924	198	8/5/74	AMC 78219
Amended	3/2/1980	1287	763	3/25/80	AMC 78219
Victoria #2	3/2/1980	1287	765	3/25/80	AMC 98902
Victoria #3	3/2/1980	1287	767	3/25/80	AMC 98903
Victoria #4	3/2/1980	1287	769	3/25/80	AMC 98904
Victoria #5	8/20/1985	1751	484	9/4/85	AMC 244644
Rim Rock 1		154	550		AMC 82449
Thunder Hill		941	750		AMC 78227
Black Dike 1		153	17		AMC 74727
Black Dike Extension 5		1339	56		AMC 118942

Kachine Doll 1 937 596

Arizona State
Mineral Lease
#11-31009

II. Patented Claims

Mother Patented Lode MS 1201

Alvarado Gold Mines NE 1/4 Sec. 21, T10N, R5W

Santa Fe Patented Land

III. State of Arizona Prospecting Permits

E 1/2 Section 14, Township 10 North, Range 5 West, G&SRB&M, Yavapai County, Arizona. Contains 268.25 acres.

NE 1/4 Section 22, Township 10 North, Range 5 West, G&SRB&M, Yavapai County, Arizona. Contains 154.74 acres.

Yourself

6/6

Kurtz says:

1. Hold all copies in Pho/Tree as Moat is reviewing + may have some minor corrections.
   if so Moat will call:
   JWS ?
   Kurtz in Fairbanks
   or Moat's lawyer will call
   JWoods in NY.

2. The $ sum is 5 millions.
   ~~Shall~~ I will call Jerry Hassard & tell him the $ & ~~other~~ that Moat is making final review & may have those changes

Hassard to hold copies until they hear from us.

VIA FAX

ASARCO

Southwestern Exploration Division

JDS

June 6, 1989

FILE NOTE

Phase II Drill Holes
as of 6/6/89
Yarnell Project
Yavapai County, AZ

The following six holes have been initiated at Yarnell, with the first five completed as of 6/6/89.

Drill samples are picked up nightly by Triad Assay and run soon thereafter. We should be almost caught up with the assaying by the time the drill crew gets back from their 4 days off after drilling 10 days, as per schedule.

Drill Hole YAR-	Site Letter	Depth T.D.
10	A	300'
11	C	260'
12	K	240'
13	U	280'
14	I	160'
15	N	drilling

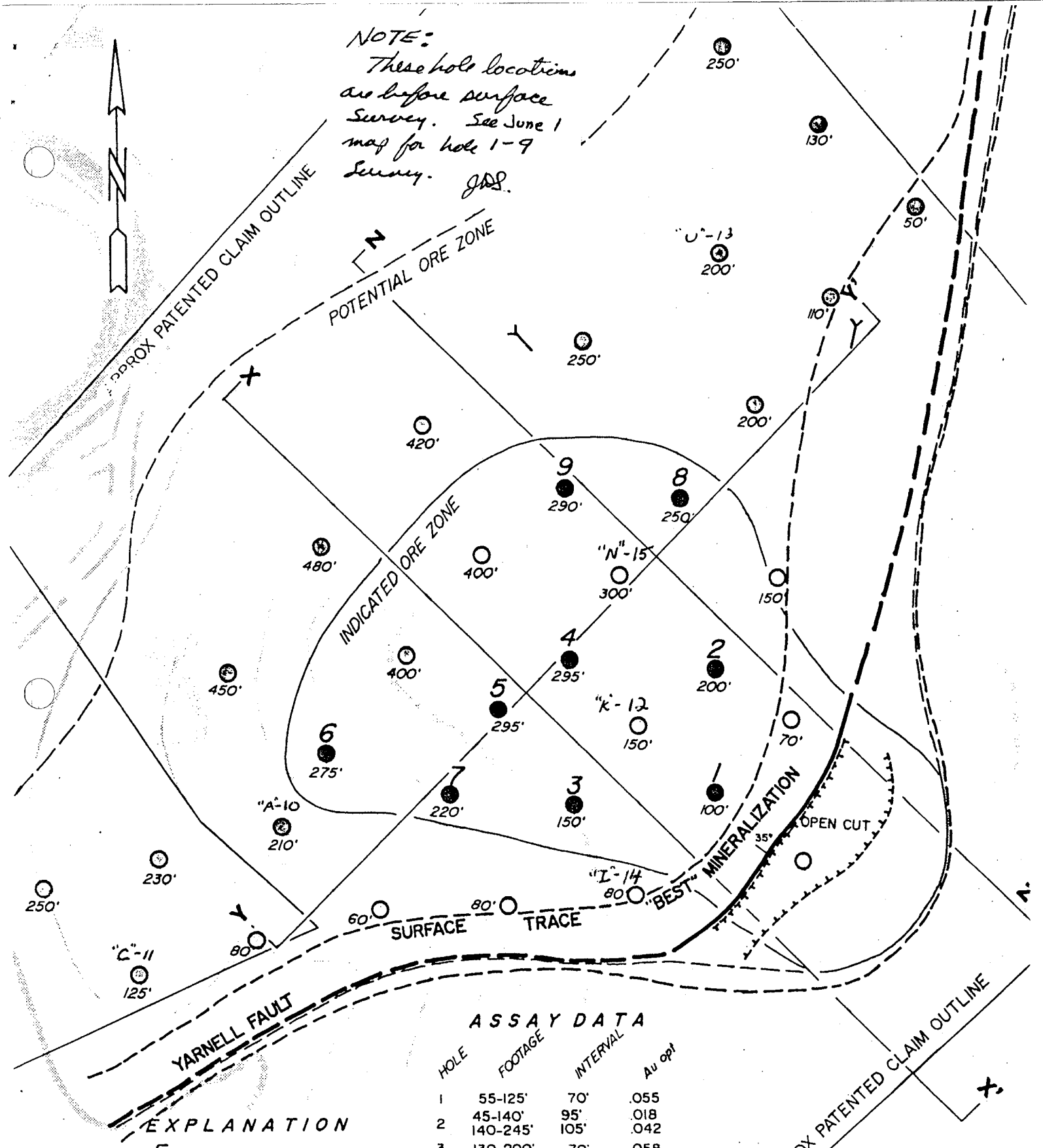
James D. Sell

James D. Sell

JDS:mek

cc: R.L. Brown/F.T. Graybeal
W.L. Kurtz

NOTE:
These hole locations are before surface survey. See June 1 map for hole 1-9 survey. JDP.



ASSAY DATA

HOLE	FOOTAGE	INTERVAL	Au opt
1	55-125'	70'	.055
2	45-140'	95'	.018
	140-245'	105'	.042
3	130-200'	70'	.058
4	115-225'	50'	.015
	295-310'	15'	.052
5	205-285'	80'	.027
	285-355'	70'	.056
6	150-180'	30'	.041
	215-235'	20'	.023
	270-280'	10'	.090
7	165-225'	60'	.042
	225-260'	35'	.016
8	30-225'	195'	.021
	225-275'	50'	.041
9	275-290'	15'	.013
	290-315'	25'	.048

EXPLANATION

5 / 295' — Completed drill hole depth to Yarnell Fault

210' — Proposed reverse circulation drill hole est. depth to Yarnell Fault

210' — Proposed conventional rotary drill hole est. depth to Yarnell Fault

T. 10 N., R. 5 W., SEC. 14

ASARCO Incorporated

YARNELL PROJECT

DRILLING PROGRESS

YAVAPAI CO. ARIZONA

0 — 200'

contour interval 40'

mn6689 WLK/dam luc 04-17-89

VIA FAX

JDS

ASARCO

Southwestern Exploration Division

June 6, 1989

FILE NOTE

Phoned in 6/6/89
Assay Drill Hole "A"/10
Yarnell Project
Yavapai County, AZ

Mark Miller phoned in the following interval of best assays of Drill Hole YAR-10, located at site "A."

Depth	Oz/T Au
130-135	0.013
135-140	0.056
140-145	0.005
145-150	0.093
150-155	0.004
155-160	0.007
160-165	0.005
165-170	0.036
170-175	0.013
175-180	0.012
180-185	0.008
185-190	0.005
190-195	0.017
195-200	0.015
200-205	0.058
205-210	0.017
210-215	0.034 (Area of Yarnell Fault)
215-220	0.020
220-225	0.041

Hole continued to 300', T.D. in 0.00X
best 190-225 = 35' at 0.029 opt Au
with the 130-225 = 95' at 0.024 opt Au.

The isolated high values are being rechecked, although the Darby check samples reported out OK.

James D. Sell

JDS:mek

James D. Sell

cc: R.L. Brown/F.T. Graybeal
W.L. Kurtz

JDS

ASARCO

Southwestern Exploration Division

June 6, 1989

W.L. Kurtz

Norgold Visit-to-be
Yarnell Project
Yavapai County, AZ

Mark Miller reported that Moat and Directors will visit the Yarnell Project on Tuesday June 20.

I told Mark that the least he could say and show Norgold, other than what has already been sent to them, the better for the project.

James D. Sell

JDS:mek

James D. Sell

cc: R.L. Brown/F.T. Graybeal
D.F. Skidmore

P.S. (WLK only)

Perhaps we should pull Mark off the project during that time, along with all his maps, assays, etc.

Jim

~~JD Sell~~ any news?

TO: ~~W.L. Kurtz~~ 6/7/89 6/12

Leo Smith has at 4/19 w/ 3 corrections, Jerry should have it back soon & out by weekend. gh

6/6/89 - After 5 PM

Jerry Haggard telephoned - Mildred took message that he wanted you to call him.

6/7/89 - 9:00 AM

I called Mr. Haggard to let him know you were out of the office. He asked about the Yarnell Agreement, said they needed a dollar figure and would send the Agreement to Mr. Moat. (Mr. Sell spoke with Barry Holt, of Evans, Kitchel & Jenckes, yesteday and gave him the $5 million amount and told him Mr. Moat was reviewing the draft agreement, etc.) I told Mr. Haggard that the dollar figure was $5 million and to hold the final agreement until he hears from you as Mr. Moat was in the process of reviewing the Agreement and might have some minor changes. Told him that Mr. Sell had spoken with Barry Holt.

Mr. Haggard said that he would be out of the office this Friday, and Monday, Tuesday and Wednesday of next week, and in his absence to talk with Barry Holt.

Mr. Holt sent a copy of the Exhibit A via Federal Express to Mr. Moat yesterday (6/6). A copy of his letter was received this morning.

Mary

JDS

DIAMOND CORE DRILLING
ROTARY DRILLING
GROUTING
FOUNDATION TESTING
DIRECTIONAL DRILLING
CORE ORIENTATION
HAZARDOUS WASTE DRILLING
WATER MONITORING DRILLING

JERROLD R. CULP
Manager
Administrative Services

Boyles Bros.
DRILLING COMPANY
A CBC COMPANY

General Offices and Plant
1707 South 4490 West P.O. Box 25068
SALT LAKE CITY, UTAH 84125
(801) 972-3333 FAX 972-6769

DISTRICT OFFICES:
ANCHORAGE, ALASKA
PHOENIX, ARIZONA
GOLDEN, COLORADO
SPARKS, NEVADA
MURFREESBORO, TENN.
SALT LAKE CITY, UTAH
SPOKANE, WASHINGTON
SANTIAGO, CHILE
LIMA, PERU

June 7, 1989

ASARCO
P.O. Box 5747
Tucson, Arizona 85703-5747

Attention: Mr. Jim Sell

Gentlemen:

We are pleased to submit our quotation (per the attached Exhibit A), for Core drilling on your project located in Yavapai County near Yarnell, Arizona.

Should you desire additional information concerning our proposal, please do not hesitate to contact Kleigh Hirschi of our Phoenix, Arizona office (602) 944-1731 or me. Should you accept our bid as submitted, please sign and return both copies, at which time we will sign and return one copy for your files.

Thank you for affording us the opportunity to bid on your project. We look forward to being of service to you.

Very truly yours,

Doug K. Hill

for Jerrold R. Culp
Manager, Administrative Services

JRC/cab

cc/Kleigh Hirschi

Encls.

ASARCO.AZ

cc: M.A. MILLER, Yarnell

EXHIBIT "A"

CORE DRILLING AGREEMENT

A. ADMINISTRATIVE INFORMATION:

1. ASARCO, hereinafter referred to as the Company.

2. **BOYLES BROS. DRILLING COMPANY**, hereinafter referred to as the Contractor.

3. Date of Agreement: June 7, 1989

4. The initial project shall consist of approximately 1500 feet.

5. Location:
State: Arizona County: Yavapai near: Yarnell

B. SCHEDULE OF RATES:

1. Mobilization and Demobilization.

(a) Total cost of mobilization from point of origin to point of access of supply truck will be accomplished for the lump sum of **$1,000.00** per drill unit requested. This cost will be invoiced with first drilling invoice.

(b) Moving from access point to first drill site and return to access point from last site will be invoiced at the rate of **$65.00** per hour per two man crew.

(c) Demobilization: **No charge**

2. Drilling Rates, Footage Rate Basis:

(a) Footage rates include bits, core barrels and rods unless otherwise specified below.

Hole size:	HX = NC = 1.87	
Depth: 0 - 500	$ 17.50	CP = 3.345 6" = 6"

3. Hourly Rates, Rig Operating:

(a) Time consumed in the following activities will be invoiced at the rate of **$70.00** per hour per two man crew:

(a.1) Cementing, drilling out cement, hole conditioning, and lost circulation.

(a.2) Surveying, reaming.

(a.3) Installing and recovering casing.

4. Hourly Rates, Non Operating:

(a) Time consumed in the following activities will be invoiced at the rate of $65.00 per hour per two man crew.

(a.1) Moving between holes, setting up, and tearing down, including first and last hole.

(a.2) Installation, relocation, maintenance, removal, of water line and/or supply pump or tanks.

(a.3) Standby time ordered by the Company's representative.

(a.4) Delays not caused by the Contractor.

(a.5) Waiting for cement to set during normal shift hours.

5. Time and Equipment Charges:

(a) If a third-party survey instrument or a third-party drilling device is required, Contractor will secure same and invoice the Company at list price plus 15%.

(b) Water truck will be invoiced at $50.00 per day for each two wheel drive truck, plus $1.25 per mile driven, if the Helper can function as a driver in addition to his other duties without causing operational delay. Operational delay will be invoiced at the rate in 4 (a).

(b.1) If a full-time driver is required, his services will be invoiced at $210.00 per 10 hour day worked.

(b.2) If a third-party hauler is utilized, all costs will be invoiced to the Company at cost plus 15%.

(c) Subsistence in the amount of $ N/A per day per man will be invoiced to the Company.

6. Materials:

(a) Casing lost, damaged or left in the hole at the Company's request; core boxes, cement, drilling mud, mud additives, lost circulation materials consumed, casing shoes damaged or left in the hole, and the material and necessary items for installation and maintenance of water line, will be invoiced at list price plus 15%.

(b) All diamond bit charges in excess of $N/A per foot average will be invoiced to the Company.

C. EQUIPMENT AND WORKING SCHEDULES

1. Contractor will endeavor to assign the following equipment:

Drill Rigs: LONGYEAR 44 TRUCK MOUNTED CORE DRILL

Pumps: BEAN 35

Vehicles: F 260 PICKUP
F 700 WATER TRUCK

Wireline rods and core barrels, casing, bits, hand tools and accessories as are required to drill holes of the sizes and to the depths listed in Section B.

2. Contractor will endeavor to assign two crews to this project and operate the above listed equipment 20 hours per day, 10 days on 4 days off until the project is completed.

D. OTHER: N/A

JDS

Cooper Aerial Survey Co.

1692 W. GRANT ROAD
TUCSON, ARIZONA 85745
TELEPHONE (602) 884-7580

June 8, 1989

ASARCO Incorporated
JUN 9 1989
SW Exploration

Asarco
Attn: Mark Miller
General Delivery
Yarnell, AZ 85362

Re: Yarnell Aerial Survey

Dear Mark,

Cooper Aerial Survey Company is pleased to submit the following proposal for the Yarnell Mine Area. Please find below written confirmation of services to be provided and price quoted.

Fly and furnish:

- 1"=100', 5' contour interval topography of 640 acres, provided in a digital format to fit your needs.
- Stereo photography of (12) square miles for possible future mapping @ 1"=200', 5' contour interval.
- Full set of 9" x 9" contact prints.

Color $4,250.00
Black & White $3,690.00

In addition to the above:

- A 1"=100' photo enlargement to correspond with the 640 acre topography.

Color (2) 30" x 56"±, $220.00 ea. = 440.00
Black & White (2) 30" x 56"±, $112.00 ea. = 224.00

- 1"=200' photo enlargements of the (12) square mile boundary, (1) sheet per square mile.

Color $199.00 each
Black & White $75.00 each

At a later date if requested, furnish 1"=200', 5' contour interval topography of the (12) square mile boundary, provided in a digital format to fit your needs.

$13,225.00

(If preferred, smaller areas within the (12) square mile boundary may be ordered at $1.71 per acre, however, there would be an initial charge of $1,260.00 for the analytical bridge).

Although Cooper Aerial Survey Company does not provide ground survey work, I am including a cost estimate for this service. These prices were quoted to me by a Tucson company with whom Cooper Aerial has successfully worked with over the years.

- Panel entire (12) square mile boundary, but provide horizontal & vertical survey on the 640 acre parcel only.
  $2,800.00

- At a later date, return to job site and complete the horizontal & vertical survey of the (12) square mile boundary.
  $6,500.00

- Panel & survey the entire project at one time.
  $8,000.00

I hope this covers everything for you Mark, if you have any questions or require more information please give me a call. I am enclosing a copy of an equipment list of our company. Also, find enclosed a xerox of the required panel layout, should you decide to take care of the ground control yourself.

Sincerely,

Mona McKibbin

Mona McKibbin
Technical Advisor

cc: Jim Sell
Asarco (Tucson)

MM/fa
enc

FTG 6/9/89

WLK/JDS to be at Yarnell on 20th.

Keep in touch w/ NY on 18th-19th

? Has Norgold signed?

unpatented Victoria's and patented Motherlode claims, the patented Santa Fe land, and the Alvarado Gold Mines property situated in Yavapai County, Arizona and described in Exhibit A hereto. Norgold shall keep Asarco informed of Norgold's progress in acquiring each of these properties, and shall provide to Asarco a copy of any proposed agreement for Asarco's approval prior to executing any binding agreement to acquire these properties.

6.3 The properties described in Section 6.2 shall become part of the Property and subject to this Agreement if Asarco agrees to assume Norgold's obligations with respect to such properties so long as this Agreement is in force.

ARTICLE VII

7.0 INSPECTION AND DATA

7.1 Asarco's engineering progress maps and factual data on all Asarco operations upon the Property shall be available upon request for Norgold's inspection for a reasonable period of time during normal business hours. Norgold may enter said Property at reasonable times for the purpose of inspecting the same, and Asarco shall facilitate such inspection in every reasonable way, but Norgold shall enter upon said Property at Norgold's own risk and so as not to hinder unreasonably the operations of Asarco; and Norgold shall indemnify and hold harmless Asarco and its directors, officers and employees from any damage, claim or demand by reason of injury to or the presence of Norgold or Norgold's agents, representatives, licensees or guests or any of them on the Property or approaches thereto unless caused by the willful or negligent acts of Asarco or its employees or agents.

shall be required to obtain consent from the other Party for any announcements or disclosures which the disclosing Party reasonably believes to be required by law or regulation, or required by any stock exchange on which the disclosing Party's stock may be listed. Whenever practicable, the Parties hereby agree that any such announcements, press releases or public statements shall be issued jointly by the Parties.

12.3 Notwithstanding the foregoing, the Parties recognize that each is a public company or a wholly owned subsidiary of a public company listed for trading on public exchanges and that a Party shall have the right to issue such announcements as, in the opinion of its counsel, it is obligated by law, regulation and/or exchange rules to so announce; provided, however, that such Party shall furnish to the other Party a copy of such proposed announcement prior to its release. In any such instance, the Party furnished with a proposed release or announcement shall comment on the same within one working day of the receipt thereof from the releasing or announcing Party. In addition, the Parties acknowledge that Norgold raises working capital and purchases assets through the issue of treasury shares and the traded value of its shares is highly material to its ongoing business and that it is of critical importance to Norgold that it be promptly advised of exploration work done on the Properties by Asarco prior to Asarco's acquiring a vested interest and the result of all work and activities conducted by Asarco on the Property thereafter, even though such work and results might not be material or as material to Asarco. Asarco agrees to keep Norgold so advised.

Book back to JDSell back to me MGM; Send att. to with cover

Hv ct Crowell to 1) Forman 1) Gingdeal

Sent 6/12/89 mek

ASARCO

Mineral Beneficiation Department

June 9, 1989

Mr. W. L. Kurtz, Manager
Western USA Division
Exploration Department
TUCSON OFFICE

NOTE: No difference in this than what we will do with diamond drill core i.e. McClelland proposal only goes as far as

LERR 6/12/89

Yarnell Project

In answer to your memorandum of June 2, 1989, regarding testwork required to design a heap leaching operation at Yarnell; we definitely require more tests than the 6 inch by 4 foot columns planned for August and September. After discussing this project with Mr. Sell, it is my understanding that the deposit is open to bulk sampling at the present time. Given this, we could embark on a more detailed test program as soon as the deposit is sufficiently well defined to permit the taking of representative bulk samples.

I have attached a copy of McClelland Laboratories' Camp Douglas proposal for reference and I believe that we should consider something similar to this for Yarnell. As soon as you have reviewed this proposal, I would like to discuss the Yarnell Project in more detail and we can then lay out a schedule for accomplishing the necessary testwork.

D. E. Crowell

DEC:brw

Attachment

cc: R. J. Kupsch w/o att.
R. L. Brown " "
J. D. Sell " "
M. A. Miller " "
D. F. Skidmore " "
File - Misc. 2F

column leach tests. Perhaps we may need a couple more diamond drill holes

RECEIVED
JUN 9 1989
EXPLORATION DEPARTMENT

but does go to 6" size in 24" column; 15" column 2" size; 12" column 3/8 size

WLK: 1) Skidmore/Crowell think both mining open-cut will do all they want + spots elsewhere.
2) have asked Lemessurier, Basile for to "core content basis" CBC doesn't do it
3) have assigned JD McLeod to yourself to help get things organized & up to snuff.

ASARCO

Mineral Beneficiation Department

June 9, 1989

Mr. W. L. Kurtz, Manager
Western USA Division
Exploration Department
TUCSON OFFICE

Yarnell Project

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	R. L. Brown	" "
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	M. A. Miller	" "
	D. F. Skidmore	" "
	File - Misc. 2F	

ASARCO Incorporated
JUN 9 1989
SW Exploration

Y/ARMCL

McCLELLAND LABORATORIES, INC.

1016 Greg Street, Sparks, Nevada 89431 702 / 356-1300
FAX 702 / 356-8917

McCLELLAND LABORATORIES, INC.

Proposal MLIP-50

I GENERAL

McClelland Laboratories, Inc. proposes to conduct heap leach cyanidation testwork on a bulk mined ore sample for Mr. D.E. Crowell, ASARCO, INCORPORATED. The testing program was designed based on information and objectives provided by Mr. Crowell, and on certain of our recommendations. The principal objective of the testing program is to determine optimum heap leach feed size for the ore. Bottle roll tests will be conducted on select cuttings composites to confirm the metallurgy of ore in the mining areas from which the bulk mined ore samples were taken. The location of the deposit and geological information about the ore was not provided.

II SAMPLE DESCRIPTION AND SAMPLE REQUIREMENTS

A total of 5.5 tons (minimum) of bulk mined ore will be required for the heap leach portion of the testing program. The ore is near surface and will be taken from trenches in a manner to simulate actual blasted ore. The ore should be received at a ROM (nominal 6 inch) feed size. The ore grade is anticipated to be 0.040 to 0.045 ounce gold per ton. This grade would represent the average ore grade of the deposit.

A total of 15 cuttings composites will be received for confirmatory metallurgical testwork. A minimum of 15 pounds of each composite will be required for the bottle roll testing phase. It is anticipated that the cuttings samples will be received already composited. Composites can be prepared by MLI if necessary. Weighted composites will be prepared. Costs for composite preparation will be provided if MLI is to prepare them.

III SCOPE OF WORK

A. Sample Preparation and Assay - Bulk Ore

It is understood that the bulk ore will be taken from two accessible mining areas. The as received feed from each area will be blended and split to obtain 400 pounds for preliminary column leach tests to obtain individual area metallurgical data. Each separate feed will be stage crushed to an 80 percent minus 3/8 inch feed size for the preliminary tests. Triplicate direct head assay samples will be split from each separate crushed feed.

The rejects from each as received feed will be combined, and will be blended by repeated coning using a Bobcat loader. The blended sample will be quartered to obtain 6000 pounds for a column leach test, and 500 pounds for a head screen analysis. The as received rejects will be stage crushed to an 80 percent minus 2 inch feed size. The two inch feed will be blended and split to obtain 1500 pounds for a column leach test and 300 pounds for a head screen analysis. Two inch rejects will be stage crushed to an 80 percent minus 3/8 inch feed size. Fine crushed feed will be blended and split to obtain 1000 pounds for column leaching, 100 pounds for head screen analysis, and sample for triplicate direct head assay. It is recommended that splits for bottle roll tests (5 kilograms) be taken for comparison with results from cuttings composite bottle roll tests.

B. Sample Preparation and Head Assay - Cuttings

It is anticipated that 15 cuttings composites will be received for bottle roll testwork. Each composite will be blended and split to obtain 5 kilograms for bottle roll tests, and samples for triplicate direct head assay.

All head assay samples will be assayed using conventional fire assay fusion procedures to determine precious metal content.

C. Bottle Roll Tests - 15 Cuttings, 1 Bulk (3/8")

Preliminary direct agitated cyanidation (bottle roll) tests will be conducted on cuttings feeds (3/8" for bulk ore) to determine precious metal recovery, recovery rate, and reagent requirements. The tests will be run also to confirm the metallurgy of cuttings composites with metallurgy from the bulk mined ore sample areas.

Bottle roll tests will be run for 96 hours at 40 weight percent solids, pH 11.0 with lime, and 2.0 pounds NaCN per ton of solution. Pregnant solutions will be sampled at 2, 6, 24, 48, 72, and 96 hours to establish extraction rates. Cyanide concentration and pH will be determined for each pregnant solution. Cyanide concentration and pH will be maintained at initial levels throughout the leaching cycles. Leached residues will be washed, dried, weighed, and assayed directly for residual precious metal content.

D. Head Screen Analyses-Combined Bulk Ore Column Leach Feeds

Head screen analyses will be conducted on the combined bulk ore column leach feeds at each feed size (80 percent minus 6", 2", 3/8") to determine precious metal content and distribution. Ore charges will be wet screened to obtain size fractions ranging from the top size to minus 65 mesh. Size fractions and weights for each feed size are as follows:

1) 6", 500 lbs, +6", -6 +4", -4 +2", -2 +1", -1 +3/4", -3/4 +1/2", -1/2 +1/4", -1/4" +10M, -10 +20M, -20 +35M, -35 +65M, -65M
2) 2", 300 lbs, +2", -2 +1", -1 +3/4", -3/4 +1/2", -1/2 +1/4", -1/4" +10M, -10 +20M, -20 +35M, -35 +65M, -65M
3) 3/8", 100 lbs, +3/8", -3/8 +1/4", -1/4" +10M, -10 +20M, -20 +35M, -35 +65M, -65M

Head screen analysis results will be compared with subsequent tail screen results to obtain recovery by size fraction data.

Head screen analyses will not be conducted on separate mining area 3/8 inch column feeds unless ASARCO deems them necessary.

E. Column Percolation Leach Tests - Bulk Ore

Column percolation leach tests will be conducted on the individual bulk mined ore area samples at an 80 percent minus 3/8 inch feed size, and on the combined bulk ore sample at three feed sizes (80 percent minus 6", 2", 3/8") to determine precious metal recovery, recovery rate, and reagent requirements under simulated heap leaching conditions. Column tests at three feed sizes along with head and tail screen results will optimize heap leach feed size for the bulk ore. The three feed sizes were selected to simulate three crushing stage discharge products. Column tests on the individual bulk

samples will be conducted in 12" I.D. x 8' high leaching columns. Column leach tests will be conducted in 24" I.D. x 18' high (6" feed), 15" I.D. x 18' high (2" feed), and 12" I.D. x 18' high (3/8" feed) columns for the combined bulk ore sample. Ore charges will be agglomerated before leaching if necessary. Columns will be loaded in a manner to minimize particle segregation. Ore bulk densities will be measured before leaching.

Leaching will be conducted by applying cyanide solution (2.0 pounds NaCN per ton of solution) over the ore charges at a rate of 0.005 gpm/ft^2 of column cross-sectional area. Pregnant solutions will be collected each 24 hour period. Effluent volumes will be measured by weighing and samples will be taken for conventional A.A. gold and silver analysis. A.A. analyses will be checked using the "lead boat" assay method the first 10 days of leaching. Cyanide concentration and pH will be determined for each pregnant solution. Pregnant solution will be passed through three stage carbon circuits for adsorption of dissolved values. Carbon charges will be advanced as value breakthrough occurs. Barren solution, with appropriate make-up reagent, will be recycled to the ore charges daily. A 60 day leach cycle is planned, but may be longer if sufficient values are still being extracted. Rest cycles may be allowed when pregnant solution grades approach analytical detection limits to determine if subsequent solution grades can be improved. Ore charges will be allowed to soak in residual cyanide solution (column drained) during rest cycles. Ore charges will be water washed after leaching to recover dissolved values and to remove free cyanide. Wash solutions can be preserved and saved for various cyanide analyses once State environmental requirements are established. Costs for environmental work for permitting purposes are not provided in this proposal. Those costs will be provided once a decision is made by ASARCO personnel concerning environmental requirements.

After leaching and washing, ore charges will be removed from the columns and retained moisture samples will be taken immediately. Moistures required to saturate ore charges and agglomeration moistures will also be determined. Ore bulk densities will be measured after leaching, before discharging the columns. Leached residues will be screen assayed to determine residual

precious metal content and distribution. Tail screens will not be performed on the individual bulk sample leached residues unless approved by ASARCO personnel. We recommend, however, that head and tail screen analyses be conducted on those ore charges to provide confirmatory optimum feed size data. Samples of each leached residue will be retained in moist form for potential environmental work.

F. Report

A written report concerning metallurgical data, data evaluation, conclusions, and recommendations will be prepared and submitted upon completion of the testing program.

IV COST OF TESTWORK

A. Bulk Ore Preparation and Triplicate Head Assays
Reimbursable cost - Estimate, 50 man hours
@ $30.00 per hour (including assays). . . . . .$ 1,500.00

B. Cuttings Preparation and Triplicate Head Assays
15 @ $50.00 (including assays). . . . . .$ 750.00
Costs will be higher if MLI prepares weighted composites - Estimate $30.00 per composite (additional).

C. Bottle Roll Tests, 15 Cuttings and 1 Bulk (3/8"), including solution analyses and tail assays.
16 @ $245.00 . . . . . .$ 3,920.00

D. Head Screen Analyses - Combined Bulk Ore Column Feeds, including fraction assays.

1) 6" feed, 500 lbs, 12 fractions. . . . . .$ 500.00
2) 2" feed, 300 lbs, 10 fractions. . . . . .$ 400.00
3) 3/8" feed, 100 lbs, 7 fractions . . . . . .$ 300.00
4) 3/8" individual feeds, if conducted
2 @ $300.00

E. Column Leach Tests, including agglomeration, solution analyses and "lead boat" checks, (60 days). Costs also include carbon and barren solution analyses.

1) Individual bulk samples, 3/8" feeds, 12 "x 8' columns 2 @ $1,900.00 . . . . . .$ 3,800.00
2) 6" bulk feed, 6000 lbs, 24" I.D. x 18" column. . . . . .$ 4,500.00
3) 2" bulk feed, 1500 lbs, 15" I.D. x 18" column. . . . . .$ 2,900.00
4) 3/8" bulk feed, 1000 lbs, 12" I.D. x 18" column. . . . . .$ 2,500.00

F. Tail Screen Analyses - Combined Bulk Ore Residues

1) 6" feed, 500 lbs, 12 fractions. . . . . .$ 500.00
2) 2" feed, 300 lbs, 10 fractions. . . . . .$ 400.00
3) 3/8" feed, 100 lbs, 7 fractions . . . . . .$ 300.00
4) 3/8" individual feeds, if conducted 2 @ $300.00

G. Report Preparation and Typing - Estimate . . .$ 1,900.00

Total $ 24,170.00

With Additional Screen Analyses $ 25,370.00

Costs may vary if the scope of work is modified and if the leaching cycles are longer than 60 days. An additional cost of $15.00 per day per column test will be included if leaching cycles are longer than 60 days (rest cycles not included).

V SCHEDULE

Preparation procedures can begin upon receipt of the samples. About 1.5 weeks should be allowed for preparation and initial assay results. It is estimated that the testwork will be completed and reported 12 weeks after preparation. Work will be done concurrently as much as possible to save time. The schedule may vary if the scope of work or column leaching period changes.

VI DEPOSIT AND PAYMENT SCHEDULE

A deposit is not requested of ASARCO. Interim invoices for completed work will be submitted on a monthly basis. Verbal updates and/or interim tabulated data will be provided on a weekly basis if sufficient new data is available.

Gene E McClelland

Gene E. McClelland
Metallurgist/President

JDS

ASARCO

Exploration Department
Frederick T. Graybeal
Chief Geologist

June 12, 1989

Mr. J. D. Sell
Tucson Office

Yarnell Project Schedule of Activities

Dear Mr. Sell:

Your schedule of activities looks okay. I have suggested revisions as attached. I would reorder the activities from earliest starting to latest ending and I would add your name to the Exploration Department ore reserve. Who is going to do the logging? You have Mr. Duncan listed as a technician. Mark Miller (?) is on vacation July 7-21, so he comes back 2 weeks behind. We need a geologist for the logging. Also, what is a water supply evaluation and can Mark do it?

To emphasize your role of intimate ongoing familiarity, please summarize the activities of each and every person on this project on a calendar month basis in writing -- a monthly project report including the activity chart to WLK with copy to NYO. Indicate which activities are complete and if others are behind, indicate why and how you will accelerate them so the project is not delayed. This may mean you will have to return to Tucson at least once a month at month end because this will be your monthly report starting June 30.

The activity chart is clear so I suggest instead of drafting, you reduce the typewritten format to 8 1/2 x 11 inch size for telecopying.

Very truly yours,

F. T. Graybeal

F. T. Graybeal

FTG:mc
Att.

cc: W. L. Kurtz

YARNELL PROJECT EA-0444

AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	1990 JAN
~~Project Supervisor, Geologist~~	~~MAM~~	~~XXXX~~	~~X X~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~
Geol. Mapping/Alteration Study - Claim Area	MAM	XXXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Mapping/Sampling - Outside Claim Area	MAM	X	X X						
Claim Staking Anomalous Areas	MAM-WDG	X	XXXX						
Complete Leasing of State Sec. 22	MAM-WDG	XXXX							
~~Monthly Reports~~	~~MAM~~	~~XXXX~~	~~X X~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~	~~XXXX~~
~~Drill Hole & Cross Sections, etc. Reports~~	~~MAM~~	~~XXXX~~	~~X X~~	~~XX~~					
~~Assay Reports~~	~~MAM~~	~~XXXX~~	~~X X~~	~~XX~~					
Final Drilling/Geology/Ore Reserve Est. Rpt.	MAM/JDS			XX					
~~Vacation (July 7-21)~~			~~XX~~						
Water Supply Evaluation/Recommendation	MAM/WDG/SWMD				XXXX				
Rotary Drilling, Incl. Site Prep. 25 holes	SPD-MAM	~~XXXX~~	XXXX						
Core Drilling incl. Site Prep. 4 holes	SPD-MAM		XXXX						
Drill Hole Location Survey	WDG	XXXX	XXXX	X					
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXX	XXXX	XXXX
Claim Survey, Clean-up	WDG	XX							
Aerial Survey Control Points	WDG	XX							
Photography, Aerial	WDG-Contractor		X						
Topographic Map, Mine Area	WDG-Contractor		XXX						
Underground Surveying	WDG-contractor		X	XXXX					
Underground Sampling	WDG/MAM		X	XXXX					
Local Demography (Yarnell Govt./Populas)	Consultant/JDS	XX	~~XX~~						
Column Leach Tests	MBD			XXXX	XXXX				
Metallurgical Reports/Recommendations	MBD					XXXX			
Re-Tuned ROI Preliminary	SWMD	XXXX							
Ore Reserve	SWMD/SWED			XXXX					
Feasibility	SWMD					XXXX			
Mine Planning/Development	SWMD					XXXX	XXXX	XXXX	XXXX
Permit, Drilling - as needed	MAM	XXXX	X X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Base Line Water Study	WDG	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Permits - Establish Guidelines/Time Tables	SWMD	XX							
Permits for Mining/Metallurgy Operations	SWMD			XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
Move Microwave Towers	WDG						XXXX	XXXX	
Decision Point for Guarantee $100K Payment					X			X	
Payment to Western Building - $100K								X	
Payment to Norgold		X			X			X	

*Note: MAM, Mark A. Miller, Geologist - does logging and mapping?
SPD, Steven P. Duncan, Technician - geologist? If not who does logging?
WDG, William D. Gay, Land Engineer
SWMD, Southwestern Mining Dept.
MBD, Mineral Beneficiation Dept.
JDS, James D. Sell

J.D. Sell 6/2/89

10 X 17 2000 cloth cambric

Ranch House Cafe

Yarnell, AZ 155.034

UPS 1110-2495

O - 18

Z - 19

J 20

V - 21

D - 22

B - 23

F

H

E

N - 15

L - 16

M - 17

To DS

Date 6/12 Time 10:35

WHILE YOU WERE OUT

M Mark

of

Phone 1-427-3556

Area Code Number Extension

TELEPHONED		PLEASE CALL	✓
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message

Operator

rent house 350 —

d rent — No

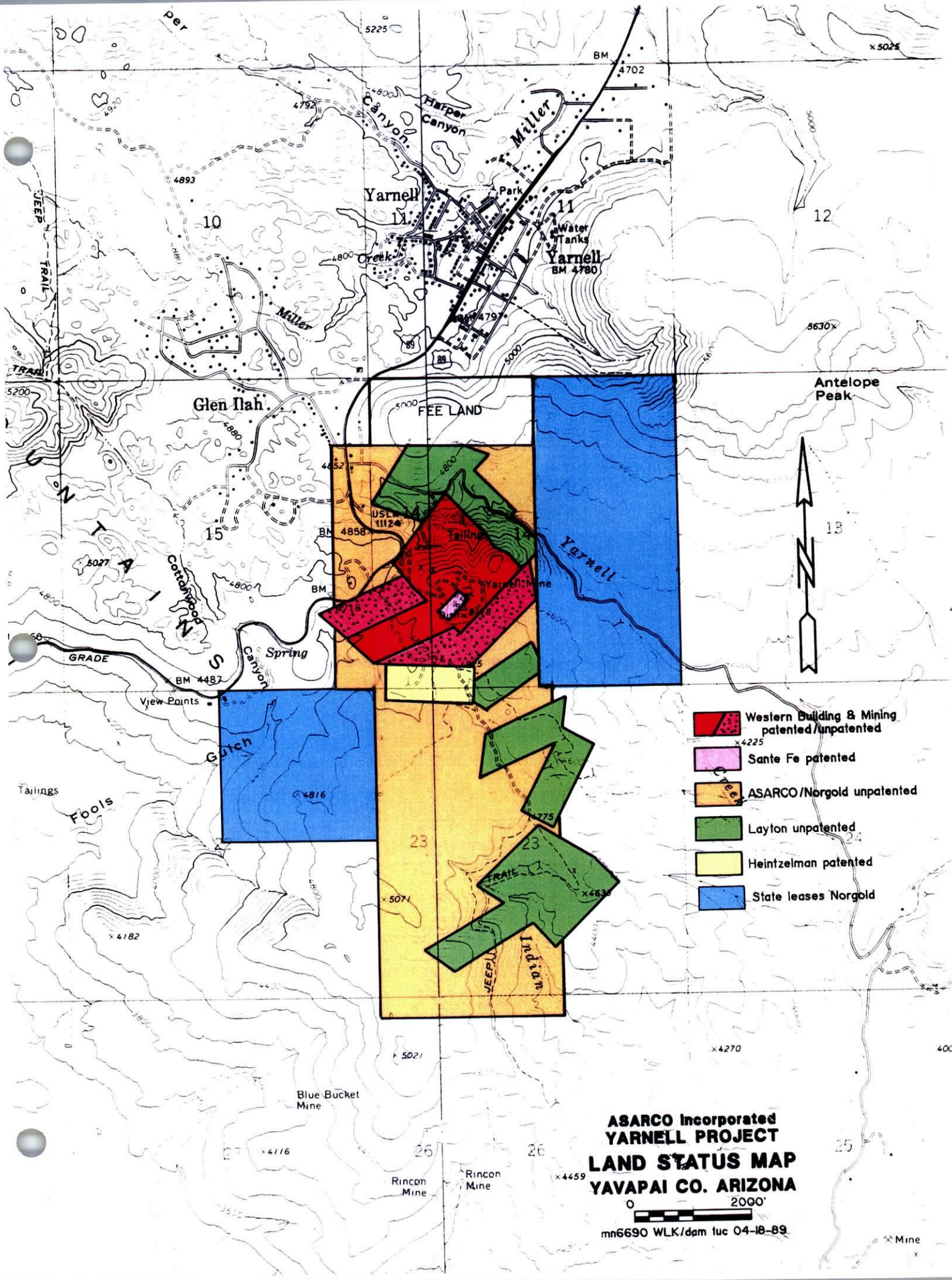
for now after all

based on workers needed

AMPAD EFFICIENCY®

23-000 50 SHT. PAD

23-001 250 SHT. DISPENSER BOX


Yarnell
Park
Water Tanks
Yarnell
BM 4780
Harper Canyon
Miller
Canyon
Creek
Miller
Glen Ilah
FEE LAND
Antelope Peak
Tailings
Yarnell Mine
Yarnell
Cottonwood
Canyon
Spring
GRADE
View Points
Gulch
Fools
Tailings
Indian
Creek
JEEP TRAIL
Blue Bucket Mine
Rincon Mine
Rincon Mine
Mine
Western Building & Mining patented/unpatented
Sante Fe patented
ASARCO/Norgold unpatented
Layton unpatented
Heintzelman patented
State leases Norgold
ASARCO Incorporated
YARNELL PROJECT
LAND STATUS MAP
YAVAPAI CO. ARIZONA
0 2000'
mn6690 WLK/dam tuc 04-18-89

FILE

JDS

ASARCO

Exploration Department
Frederick T. Graybeal
Chief Geologist

June 12, 1989

JUN 15 1989
SW Exploration

Mr. J. D. Sell
Tucson Office

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Very truly yours,

F. T. Graybeal

F. T. Graybeal

FTG:mc
Att.

cc: W. L. Kurtz

JDS

ASARCO

Southwestern Exploration Division

June 13, 1989

M.A. Miller

Metallurgical Sample
Yarnell Open-Cut
Yarnell Project
Yavapai County, AZ

In conference with Dave Skidmore and Don Crowell it was a consensus that a metallurgical sample could be secured from the open-cut at Yarnell.

Please have all the loose debris along the toes of the walls moved out of the pit, and the walls and floor cleaned for the entire length.

A sampling program should then be initiated on lines 10 feet apart sliced across the pit and walls. Sample lengths of five feet are recommended along the lines, with due control of length of sample across the exposed vein/gouge zone. Spray paint the sample intervals for later recapture.

After receipt of sample values, Mr. Skidmore and Mr. Crowell will block out a drilling program (wagon drill or hand-held sinker drills) and sequence the blasting to secure a large sample for metallurgical testing.

The clean-up should commence as soon as possible, along with the sampling/assaying, to present the results to Skidmore/Crowell by the end of June. Skidmore/Crowell will then program the blasting/pick-up/ and shipment for metallurgical testing.

Don Crowell plans on visiting Yarnell on Tuesday, June 20, and should be able to be fitted in and shown the open-cut along with Norgold.

James D. Sell

JDS:mek

James D. Sell

cc: W.L. Kurtz
D.F. Skidmore
D.E. Crowell

ASARCO

Southwestern Exploration Division

JDS

June 13, 1989

J.J. Malusa

Assignment
Yarnell Project
EA-0444
Yavapai County, AZ

Upon completion of the skeletonizing at Miami warehouse, please report to Mr. Mark A. Miller to work on the Yarnell Project until further notice.

James D. Sell

JDS:mek

James D. Sell

cc: W.L. Kurtz
M.A. Miller
J.D. Rasmussen

JDS

ASARCO

Southwestern Exploration Division

June 13, 1989

J.D. Sell

Western Air Service
Yarnell Aerial Photography

On 6/12/89 I informed Frank Deal of Western Air Maps that they have been awarded the contract for Yarnell. There are several stipulations to the contract as follows:

1. Approval from Lou Jensen (Asarco Computer & Engineering Services) that the data will be in a form that Asarco can generate their own topo maps. (This was confirmed verbally by D.F. Skidmore of SWMD on 6/13/89.)

2. Meeting with contract surveyors and Western Air Maps to discuss the location and placement of survey panels and H&V control necessary for the aerial survey. (This is set for 6/22/89 with MAM and WDG in attendance.)

The cost of the contract will be approximately $12,000 and a contract is being sent to your attention in Tucson for signature. Western Air Maps will fly once the panels and H&V control are obtained. Incidentally, Cooper Aerial Service submitted a bid of approximately $16,000 for the same service.

MAM:mek

Mark A. Miller

ASARCO Southwestern Exploration Division JDS

June 14, 1989

M.A. Miller

Yarnell Project
Yavapai County, AZ

Mr. R.L. Brown will be publishing the Exploration Quarterly Report and I would appreciate a summary from you the quarter's activity by June 25.

James D. Sell

JDS:mek James D. Sell

cc: W.L. Kurtz

ASARCO

Southwestern Exploration Division

JDS

June 14, 1989

M.A. Miller

Monthly Summaries
Yarnell Project
Yavapai County, AZ

Mr. F.T. Graybeal requests that I send to him monthly a summary which will include the following:

1. What happened!
2. What should have happened!
3. What is being done to resolve item 2 events not completed!
4. What is to be done in coming month!

Please write your monthly report to me with the above 4 point outline in mind.

James D. Sell

JDS:mek

James D. Sell

cc: W.L. Kurtz

No Type

~~IDSell~~ → Return to W.Lot

Please note you are rapidly approaching 45° pit limit vs highway as noted on two sections (please return)

Fortuitously "my" last line off hill (Tu 450, 480, 420) proposed sites are at edge.

To SW Hole 26 (good hole just completed w. assays) is within ±140 feet of a pit edge (i.e. can move another 140' NW for a hole but any further would put pit edge < 100' of highway.

Yes, correct.

Depending upon values in last line, may need an extra line beyond to have control for computer reserve and may be able in the gravels to have a steeper wall. The geo-tech, McCall, et al, will have a large input on this I would think.

I see that Hole 26 (Site G) had 90' @ 0.054 or 120' @ 0.045 starting at depth of 200' (& perhaps 5' higher depending upon assay of 195'-200' pending).
or from 240-285 = 25' @ 0.109 oz Au/T which might open up the question of continuing by underground from the bottom of the pit.

JDS

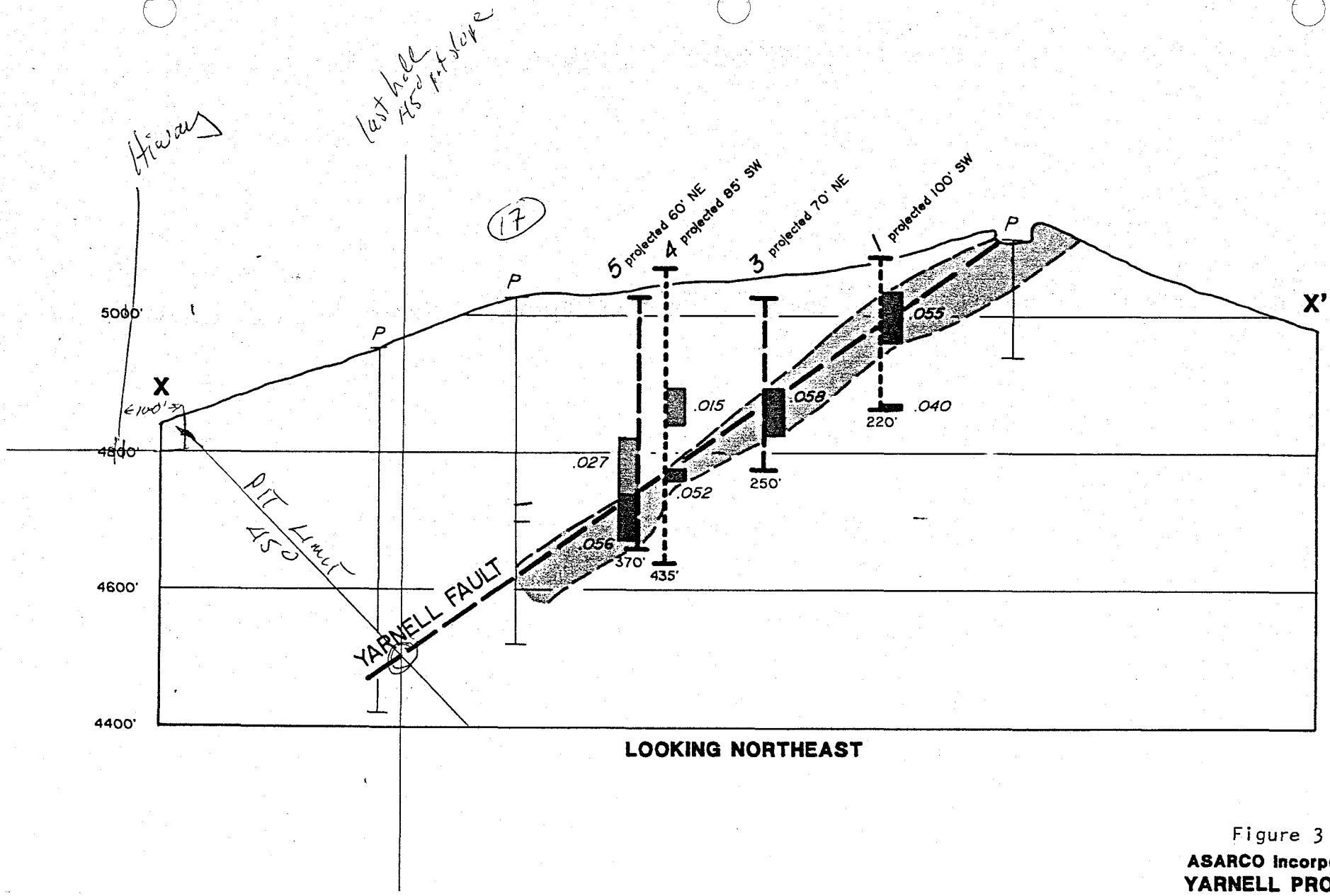


Figure 3

ASARCO Incorporated

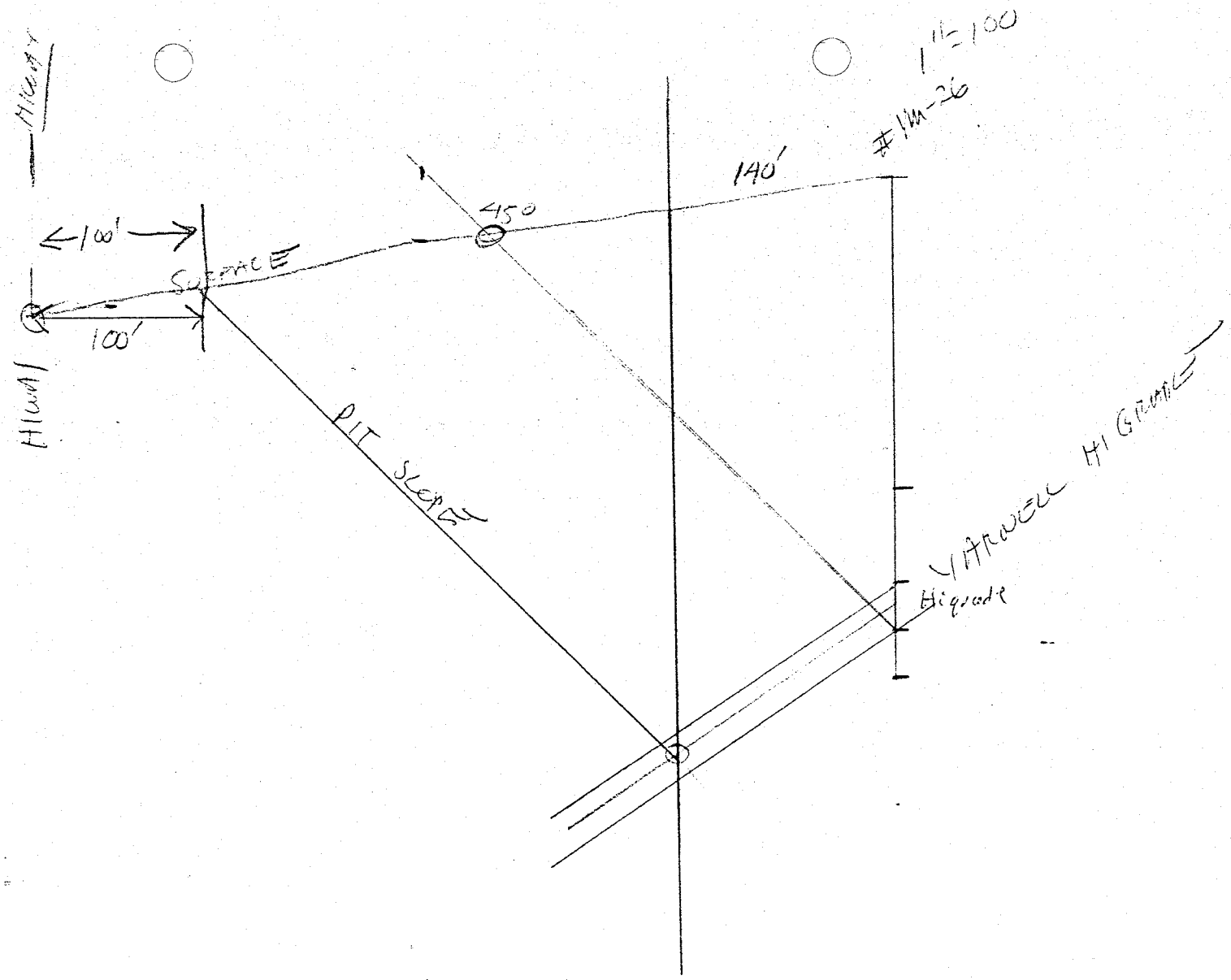
YARNELL PROJECT

SECTION X - X'

YAVAPAI CO. ARIZONA

0 200'

mn6688 WLK/dam fuc 04-06-89


1" = 100
#1M-26
140'
45°
100'
100'
SURFACE
PIT SLOPE
VITROWELL HI GRADE
Higrade
HIWAY

Yarnell
Dull Hole Coordinates
1-9 double checked
10-21 single check

WLK
JDS

6/15/89

The attached was compiled by W D Gay and FAX'd to Mr Brown in New York.

M.

YARNELL DRILL HOLE
SURVEY DATA

DRILL HOLE NUMBER	CO-ORDINATES NORTH	EAST	ELEVATION	
YM-1	100,255.5	49,875.4	5,078.9	
YM-2	100,490.7	49,860.6	5,063.4	
YM-3	100,218.5	49,625.8	5,011.2	
YM-4	100,505.3	49,675.8	5,052.7	
YM-5	100,437.1	49,565.2	5,042.2	
YM-6	100,278.7	49,286.7	4,949.4	
YM-7	100,260.5	49,471.6	4,987.4	
YM-8	100,717.9	49,749.2	4,958.3	
YM-9	100,734.8	49,577.2	4,930.5	double checked
YM-10	100,177.0	49,171.1	4,894.3	single survey only.
YM-11	99,998.0	48,983.2	4,874.3	
YM-12	100,356.5	49,788.4	5,074.1	
YM-13	101,099.2	49,909.0	4,810.5	
YM-14	100,110.1	49,780.1	5,051.0	
YM-15	100,581.8	49,765.5	5,037.1	
YM-16	100,383.9	50,017.0	5,057.0	
YM-17	100,458.2	49,405.8	5,017.6	
YM-18	100,637.8	50,002.4	4,991.1	
YM-19	Not surveyed yet.			
YM-20	100,136.5	50,065.9	5,075.0	
YM-21	101,062.1	50,094.4	4,806.6	

Note: YM-1 through YM-9 have been checked.

YM-10 through YM-21 have been surveyed but not checked - use as preliminary only.

NOTE: "Dish" is 100,000 N and 50,000 E and elevation of 5118.0'

back of hand
reserve calculation

Granite; slightly alt

compression strength 9400 psi

ave SG = 2.61 = 12.3 ft³/ton.

Ave. Porosity = 2.34 %

Mg Bogbury 18,000 - 25,000 psi

2.57 SG

2.40 %

~~44~~
40
51
40.4
34
28
24
14
8
5
3

62.4 #/ft
× 2.61

162.9
12.3 tonnes factor

100#/cu ft on broken rock.

h-

Central

Hole #	Thickness	Grade
18	140	-0.038
2	155	-0.042
12	110	-0.034
8	245	-0.026
15	155	-0.034
4	305	-0.012
5	155	-0.041
~~7~~		

$\frac{1265}{7} =$ 181 ft thickness

$\frac{37.225}{1245} = 0.02943$ approx 2.4 mil loss

.5 stripping

$\frac{0.18548}{5.13} = 0.036$

5.13 mil loss @ 0.036 opt in total

less 2/1 stripping ratio

SW Side

Hole #	Thickness	Grade
16	50	0.034
20	35	0.070
1	95	0.037
3	80	0.057
14	75	0.040
7	75	0.047
6	45	0.049
10	35	0.029
11	65	0.049
17	~~35~~	~~0.032~~ 2.12

$\frac{\cancel{25.305}}{505} = 0.04559$ ~~avg~~ $\frac{21.025}{440} = 0.04379$

$\frac{\cancel{589}}{\cancel{9}} = 64.9$ ft

$\frac{640}{10} = 64.0$ ft thick approx 2.2 mill tons @ 0.044

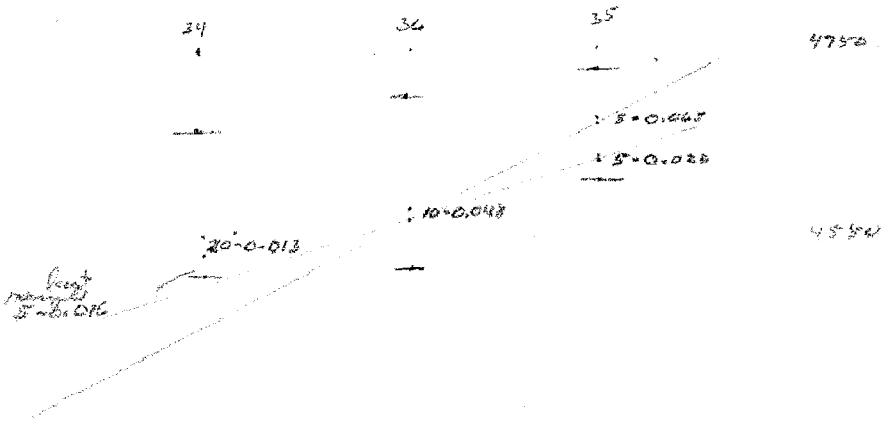
1.5 Tons

NE side

Hole #	Thickness - Grade
19	30 - 0.058
9	30 - 0.043
21	30 - 0.019
13	30 - 0.022

30 ft thick @ 0.0355 opt approx 530,000 tons

7.0 stripping


34
36
35
4750
4550
10-0.048
20-0-013

ASARCO

Southwestern Exploration Division

JDS

June 15, 1989

J.D. Sell

YAR 31 thru 39
Lode Claims
Yarnell Project
Yavapai County, AZ

Attached is a map of the recently staked YAR claims Nos. 31 thru 39. All posts are set and location notices were recorded, and the notices are now being processed by the BLM.

I discovered an error in writing the original location notices. This error has been corrected on amended notices of location. These notices will be placed in the field and recorded next week.

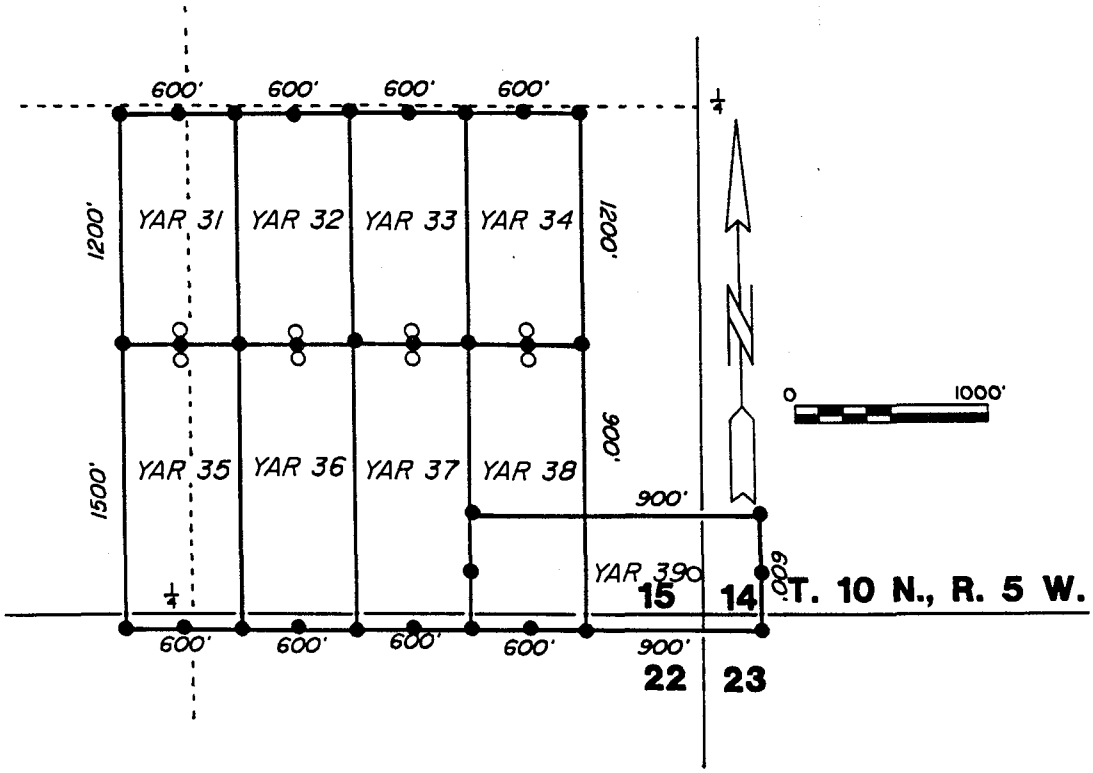
William D. Gay

William D. Gay

WDG:mek
Att.

cc: W.L. Kurtz

Copy sent to RL Brown 6/19


600'
600'
600'
600'
1200'
YAR 31
YAR 32
YAR 33
YAR 34
1200'
900'
1500'
YAR 35
YAR 36
YAR 37
YAR 38
900'
YAR 39
600'
15
14
T. 10 N., R. 5 W.
600'
600'
600'
600'
900'
22
23
0
1000'

ASARCO

Exploration Department
Southwestern United States Division

CERTIFIED MAIL
RETURN RECEIPT

June 15, 1989

Bureau of Land Management
Arizona State Office
P.O. Box 16563
Phoenix, AZ 85011

Filing of Mining Claim
Notices of Location
Yarnell Project
Weaver Mining District
Yavapai County, Arizona

Gentlemen:

In accordance with Section 314 of the Federal Land Policy and Management Act of 1976 (43 U.S.C., Sec. 1744), and the regulations thereto, enclosed for filing in your office are copies of the official record of the Notices of Location with maps for the following 9 lode claims in the Weaver Mining District, Yavapai County, Arizona:

Name of Claim	Date of Location	Recorded in the Official Records of Yavapai County		
		Book	Page	Instrument No.
YAR-31 thru YAR-39	6/6/89	2155	256 thru 264	8920861 thru 8920869

A check for $90 is enclosed as your filing fee. Please send receipt and accounting advise in the enclosed envelope.

Very truly yours,

William D. Gay

William D. Gay
Land Engineer, SWED

WDG:mek
encs.

cc: R.L. Brown
M.A. Miller
J.D. Sell
C.L. Snow

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

ASARCO

Southwestern Exploration Division

JDS

June 15, 1989

F.T. Graybeal
New York Office

Yarnell Project
Schedule of Activities
Yavapai County, AZ

Your letter of June 12, 1989, with comments, has been received, thank you.

I have assigned a recent UofA geology graduate, Mr. John J. Malusa, who was hired for the summer to work in Utah, to work with M.A. Miller on the Yarnell Project. John was there for about a week, learning the drilling/sampling/logging procedures; then I pulled him off to help me with the Superior East core to be moved to Tucson.

As I stated, John will now go back to Yarnell for logging and other project work under M.A. Miller.

Mr. Miller is still thinking of a two-week vacation as his wife will be gone and he'll have the two boys. One of the boys is having a birthday party during that period. I have put forth the thought to Mark that he should not be away from the drilling for that long, and that he was welcome to take the boys to the Yarnell house at any time.

As for the water supply evaluation by Mark--this was designed to be an early evaluation of the flow/quality (mainly spring and wells) which could be gathered as Mark went about his mapping/sampling of outside the claim area. The true evaluation will be made by SWMD/consultants.

Thanks for your comments on the flow chart. I'll incorporate them with others for the new chart forthcoming.

James D. Sell /mek

JDS:mek

James D. Sell

cc: W.L. Kurtz

ASARCO

Southwestern Exploration Division

June 16, 1989

W.L. Kurtz/J.D. Sell

Information Memo

On 6/14/89 I tried to call J. Woods to find out how we could get power of attorney to obtain a prospecting permit for Section 22, T10N, R5W (Yarnell Project).

J. Woods did not call back but R.L. Brown called and said to send him the "package" and he would take care of the permit. The papers were sent Federal Express to R.L. Brown.

On 6/15/89 in the afternoon I received a call from J. Woods. He said he was calling to find out if R.L. Brown had talked with me. He then told me Mr. Tom Osborne said "there will not be any more permits (prospecting or mineral) requested from the State by Asarco at present. J. Woods suggested Norgold obtain the permit.

6/20 RLB says holds off asking Norgold until all is signed.

William D. Gay

WDG:mek

William D. Gay

ASARCO

Exploration Department
Southwestern United States Division

June 16, 1989

Mona McKibbin
Cooper Aerial Survey Co.
1692 W. Grant Road
Tucson, AZ 85745

Dear Mona:

As I told you by phone on 6/11/89, we have decided to award the bid for Yarnell to another company. Thank you for your interest in our project and we will surely contact you for future projects.

Respectfully,

Mark A. Miller/mek

Mark A. Miller
Project Geologist

MAM:mek

cc: J.D. Sell

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

ASARCO

Southwestern Exploration Division

June 16, 1989

W.L. Kurtz/J.D. Sell

Vehicle Accident
7:15 AM 6/7/89

Time: About 6:45 AM

Details: Set foot brake on vehicle on downgrade approximately -6% and started to get out to check claim corner (YAR) beside the road. Just as I stepped out, I heard brake "pop" loose. Vehicle started to roll. Attempted to reenter vehicle, but unable to do so. Vehicle rolled down road, left right side and rolled over on top.

Location: East of Glen Ilah, about 1/4 mile east of US 89 on Mina Road.

SEE ATTACHED SHERIFF'S REPORT

William D. Gay

WDG:mek

William D. Gay

LISA/85-9

INCIDENT REPORT

YAVAPAI COUNTY SHERIFF'S OFFICE, 255 E. GURLEY, PRESCOTT, AZ 86301

VICTIM/PERSON REPORTING: GAY, William Douglas	PHONE (HOME)	(BUSINESS)	CR NO. 89-07162
ADDRESS: 301 W. Golf View Dr Tucson Az	TYPE OF INCIDENT: Rollover	DATE: 6-7-89	TIME: 0727
SUSPECT/PERSON INVOLVED: S.A.A.	ADDRESS	PHONE (HOME)	(BUSINESS)

SEX	RAC	AGE	DOB	HGT	WGT	HAIR	EYES

SOC SEC NUMBER	DATE & TIME OF OCCURENCE: 6-7-89 0715

VEHICLE	COLOR	YEAR	MAKE	MODEL	LICENSE	LICENSE STATE
	Beige	1982	Chev	P/U	3EP259	AZ

RELATE EVENTS AS THEY HAPPENED:

On June 7, 1989 approx 0727 hrs I was contacted by dispatch ref: Rollover on Mina Rd. Yarnell Az. I was contacted by GAY, William D. driver of the 1982 Chev P/U belonging to ASARCO Inc Box 5747 Tucson Az. He advised he had stopped to check a survey marker and set the emergency brake. When he stepped clear of the vehicle he heard the brake come off and the vehicle proceeded to roll down the incline. Vehicle went off the right side of the road into a drainage ditch and rolled over. The vehicle didn't appear to be to damaged badly. GAY advised that the company was self insured and they were in the process of removing the vehicle.

No citations issued.

Report for information only.

Closed

Vehicle involved.

1982 Beige Chev P/U VIN 1GCEK14H9CF313491

SUPERVISOR APPROVING	BADGE NO.	OFFICER REPORTING	BADGE NO.	DATE
		Dawson	# 721	6-7-89

JDS

ASARCO

Southwestern Exploration Division

June 16, 1989

F.T. Graybeal/R.L. Brown
New York Office

Flow Chart
Yarnell Project
Yavapai County, AZ

As you have requested, I am pleased to submit a Flow Chart for the designated activities at the Yarnell Project in Arizona.

The chart is distributed to those involved and if the activity is being worked on during the week, the participant will mark off that week. Should an activity be scheduled but not completed during the week in question, then a note as to the postponement of that activity will be submitted by the participant to clarify the situation.

I agree with you that this chart will help the flow of activities on the project.

James D. Sell, mek

James D. Sell

JDS:mek
Att.

cc: W.L. Kurtz
D.F. Skidmore
D.E. Crowell
M.A. Miller
W.D. Gay
J.J. Malusa
S.P. Duncan

YARNELL PROJECT EA-0444

Yavapai County, Arizona

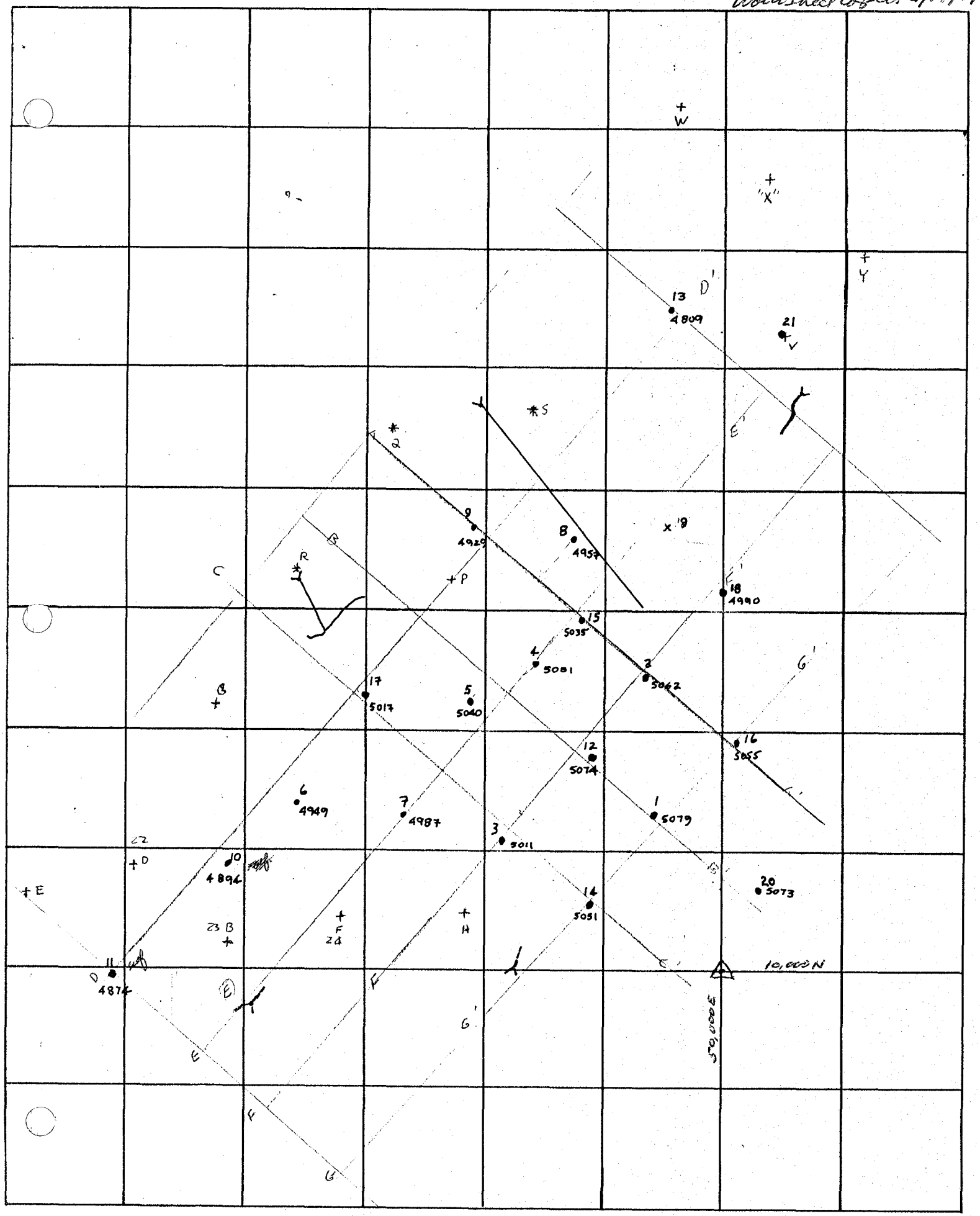
AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	1990 JAN.
Geol. Mapping/Alteration Studies - Claim Area	MAM	XXXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Permits, Drilling, as needed	MAM	XXXX	X						
Rotary Drilling, 25 holes, sites, logging	SPD-JJM-MAM	XXXX	XXXX						
Drill Hole Location Survey	WDG	XXXX	XXXX	X					
Claim Survey, Clean-up	WDG	XXX							
Re-Tuned ROI, Preliminary	SWMD	XXXX							
Base-Line Water Survey	WDG-MAM	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	
Open-cut Sampling, Metallurgical	JJM-MAM	XX							
Aerial Survey Control Points	WDG	XX							
Permits - Establish Guidelines/Time Table	SWMD	XX							
Mapping/Sampling - Outside Claims	MAM	X	XXXX						
Claim Staking Anomalous Areas	MAM-WDG	X	XXXX						
Local Demography (Yarnell/Glen Ilah)	JDS-Consultant	XX					XX		
Core Drilling, 4 holes, sites, logging, Metallurgy	SPD-JJM-MAM		XXXX						
Photography, Aerial	WDG-Contractor		X						
Blasting & Removal of Open-cut Metallurgical Sample	SWMD-Contractor		XX						
Topography Map, Mine Area/Photography Total Area	WDG-Contractor		XXX						
Underground Surveying	WDG-Contractor		X	XXX					
Underground Sampling	WDG-JJM		X	X					
Final Drilling/Geology/Ore Reserve Est. Report	MAM-JDS			XX					
Permits for Mining/Metallurgical Operations	SWMD			XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXXX
Column Leach Tests	MBD-McC		XX	XXXXX	XXXX				
Ore Reserve	SWMD-SWED			XXXX					
Water Supply Evaluation/Recommendations	MAM-WDG-SWMD				XXXX				
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXXX	XXXX	XXXXX
Metallurgical Reports/Recommendations	MBD-McC					XXXX			
Feasibility Report	SWMD					XXXX			
Removal of Microwave Towers	WDG-Contractor					XXXX			
Mine/Metallurgical Plant Planning/Development	SWMD-MBD					XXXX	XXXXX	XXXX	XXXXX

PERSONNEL:

JDS, James D. Sell
JJM, John J. Malusa, geologist, temporary
MAM, Mark A. Miller, project supervisor, geolgoist
MBD, Mineral Beneficiation Dept.
McC, McClelland Laboratories, Inc.
SPD, Steven P. Duncan, technician
SWED, Southwestern Exploration Division
SWMD, Southwestern Mining Department
WDG, William D. Gay, land engineer

J.D. Sell 6/15/89

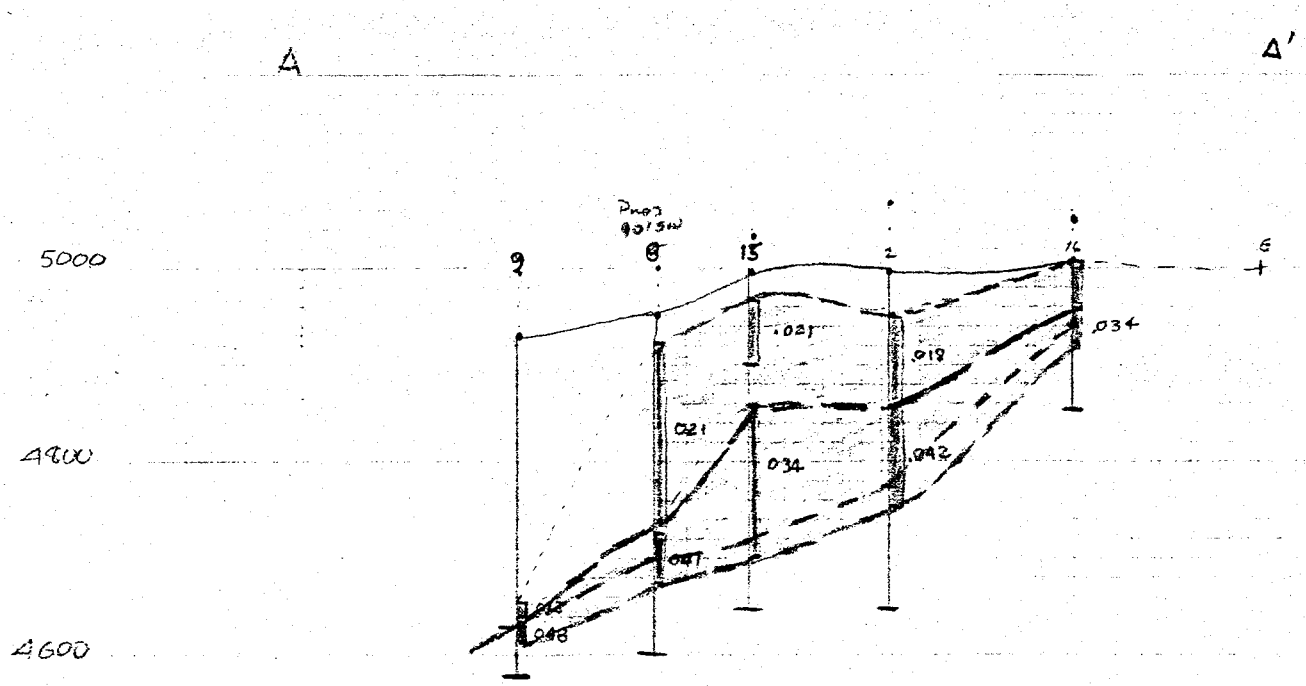
Worksheet Copies 6/19/89



MINE Yarnell LOCATION Surveyed Drill Holes LEVEL

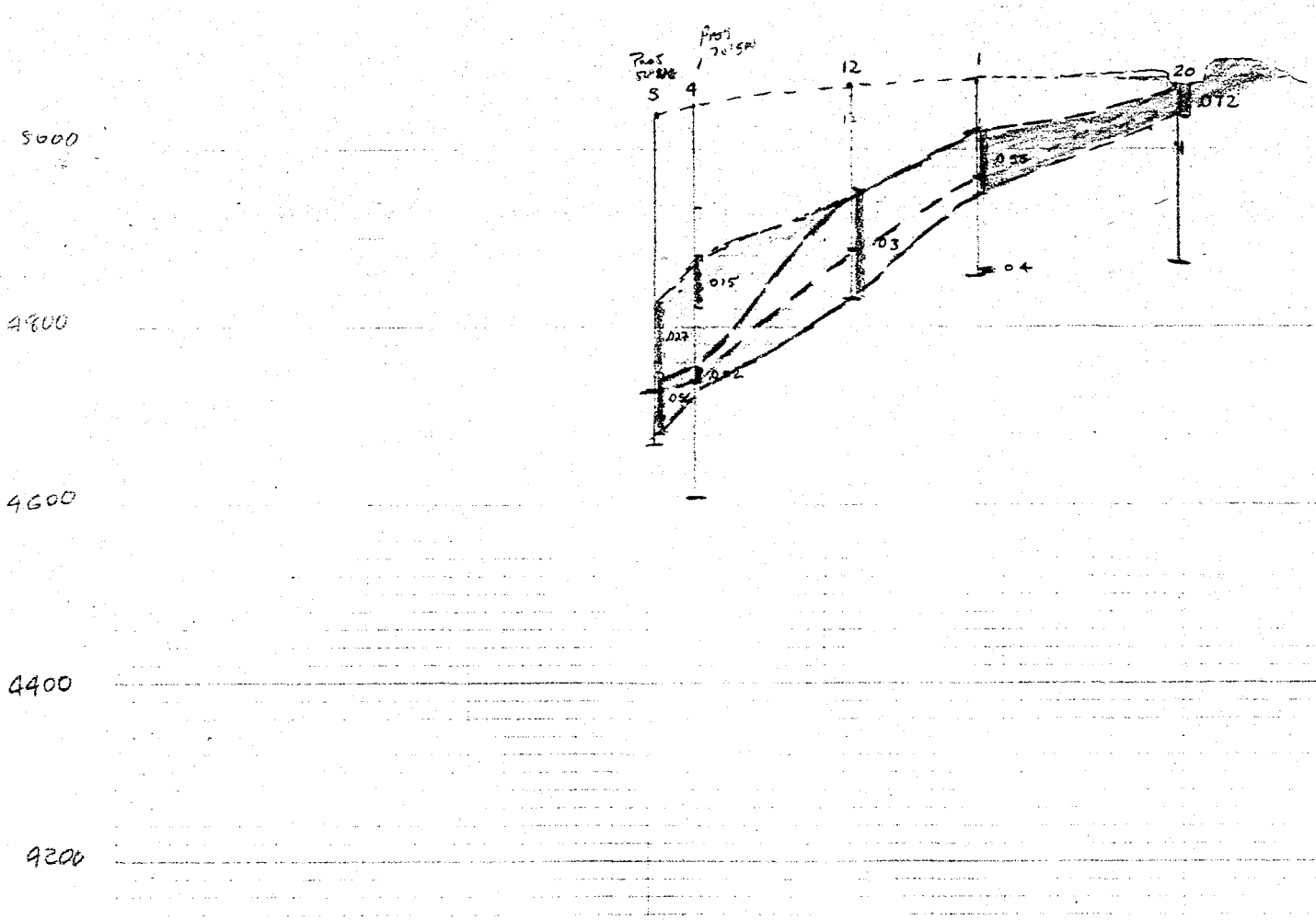
GEOLOGY BY M. Miller SURVEY DATE SCALE 1" = 200'

A-A'

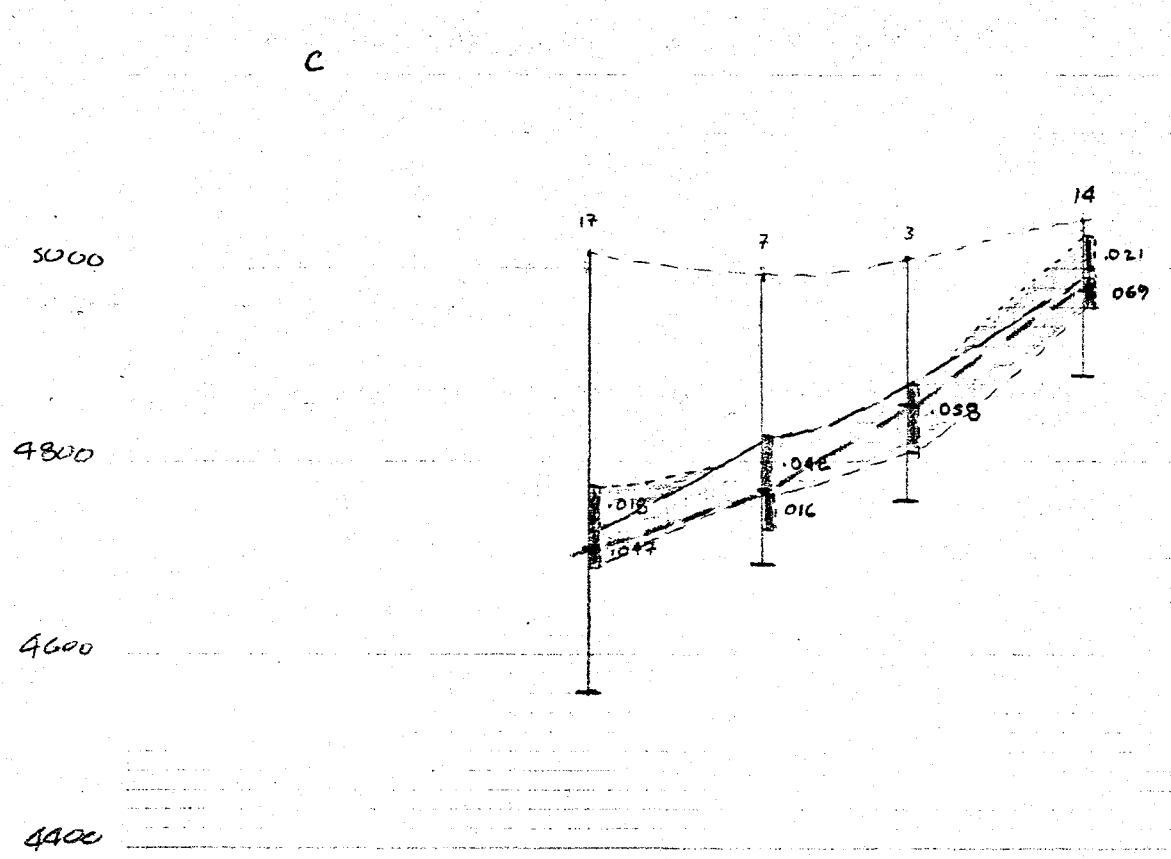

A
A'
5000
4800
4600
4400
4200
9
15
2
14
6
.021
.018
.034
.021
.034
.042
.041
.042
.048

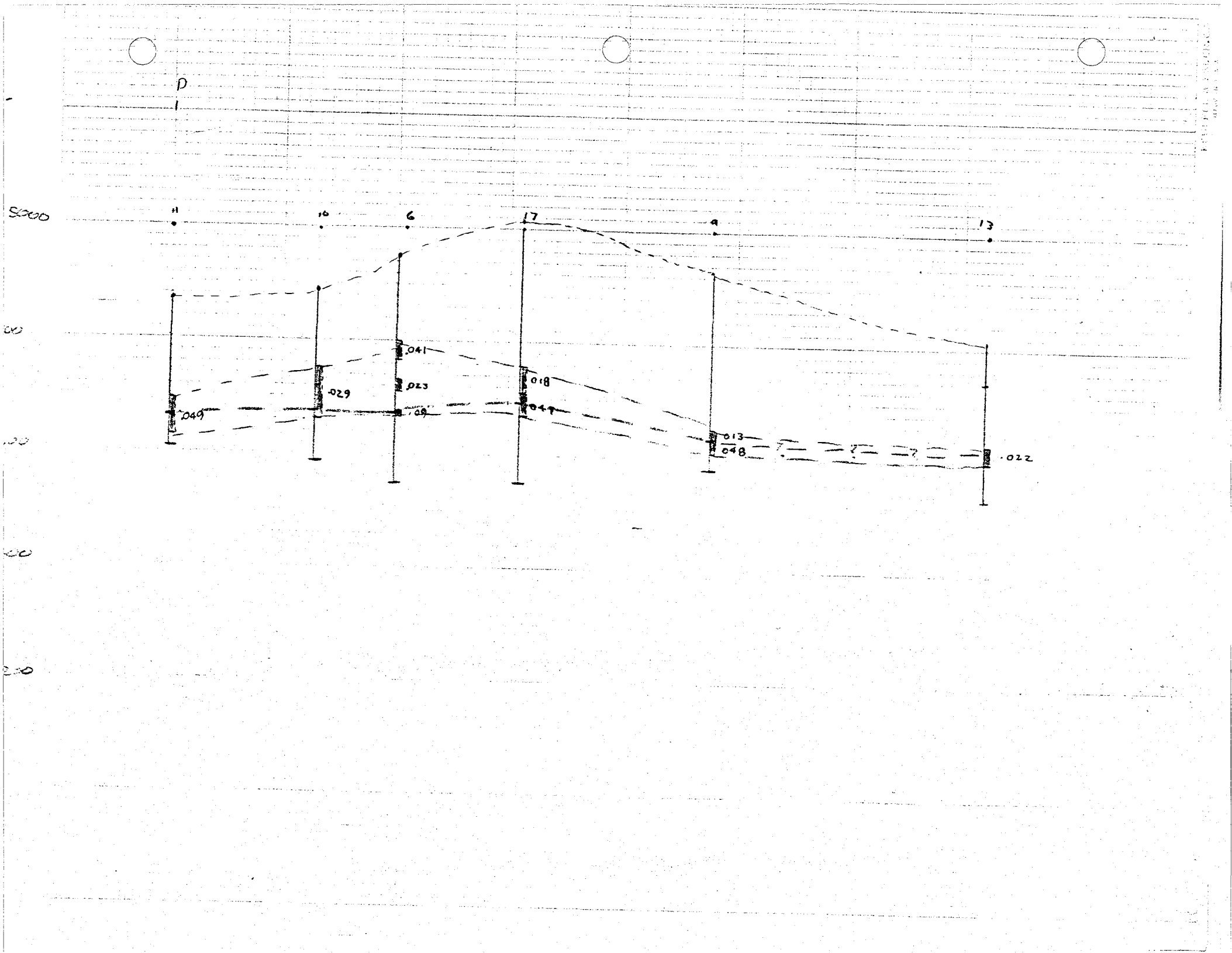
B - B' 1" = 200'

B B'



C-C' 1"=200' (looking NE




D
11
10
6
17
9
13
.041
.029
.023
.018
.049
.09
.047
.013
.048
.022

E-E' 1"=200' Looking NW

E1

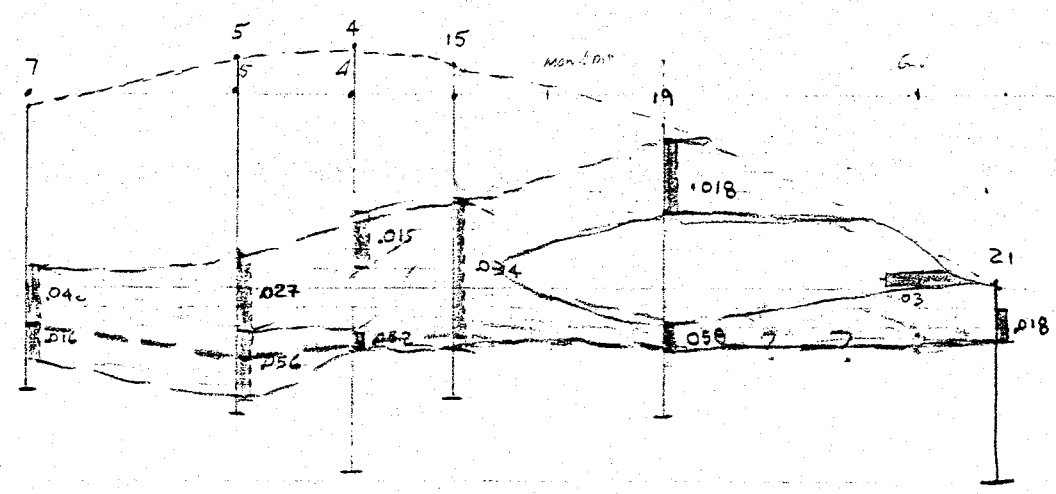
5000

4800

4600

4400

4200



F-F'

F
1

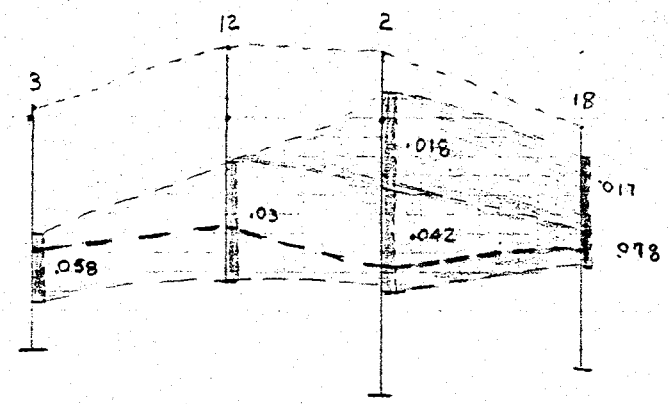
5000

4800

4600

4400

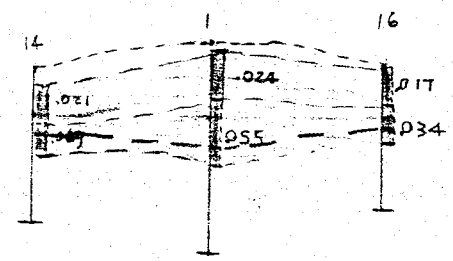
4200



G-G'

G

G'



5000

4800

4600

4400

JDS

ASARCO

Mineral Beneficiation Department

June 19, 1989

JUN 2 1989

SW Exploration

Mr. J. D. Sell, Manager
Southwestern US Division
Exploration Department
TUCSON OFFICE

Yarnell Project Testwork

A meeting was held on June 13, 1989, with yourself and D. F. Skidmore to discuss the feasibility of obtaining a bulk sample at Yarnell for metallurgical testwork. It was agreed that a representative sample (at least representative of the initial few years of mining) could be taken from the open cut, and you will arrange to clean out and channel sample the open cut so that a site could be located for taking a six-ton sample. This sample must be as coarse as possible, consistent with available equipment, so that a portion of it can be used for leach testing at an 80% minus six-inch size.

It is my understanding that most of the ore is fairly uniform and highly silicified which will make it a good candidate for heap leaching. However, a small portion will be fault gouge or clay which could cause serious problems. Since the proportion of gouge material is unknown at this time, I believe that we should take a separate sample (±500 pounds?) of gouge material so that we can test various proportions combined with silicious material to determine its effect on percolation rates. This could be done on a small scale initially, but might require a large-scale test in the future. A preliminary schedule for obtaining this sample would be two weeks to identify a sample site and two weeks to collect and ship the sample. This means we should plan to start testwork around July 15, 1989.

It is a little early to lay out a comprehensive metallurgical test program, but the preliminary testwork proposed here (three column leach tests at different sizes) is certainly the place to start and will give us a good idea of expected recoveries. Also, this testwork will give us sufficient data to prepare a preliminary design criteria to begin the permitting process. The work done last year on the Camp Douglas Project will facilitate setting up this test program and writing the preliminary design criteria since the concepts are similar. At this point, I doubt that it will be necessary to run a large-scale test heap; although, we may want several 4 ft x 20 ft column tests later.

I have contacted McClelland Laboratories regarding this testwork and they can accomodate us on July 15 or a week or so later. A proposal from McClelland for the preliminary phase of testwork is enclosed. This proposal is not completely correct since I have not had a chance to discuss this project in detail with Mr. McClelland; however, I plan to do so before the testwork begins. The cost estimate should be increased to $20,000 to cover longer or additional tests. I recommend that we use McClelland since I was impressed with their facilities and approach to the testwork on the Camp Douglas Project and their costs were comparable to other major laboratories. I do not think we should use local test laboratories for this project since McClelland has far more experience and larger facilities for large-scale column leach testwork.

D. E. Crowell

DEC:brw

Enclosure

cc:	R. J. Kupsch	w/enc.
	R. L. Brown	"
	W. L. Kurtz	w/o enc.
	D. F. Skidmore	" "
	T. E. Scartaccini	" "
	File - Misc. 2F	

McCLELLAND LABORATORIES, INC.

1016 Greg Street, Sparks, Nevada 89431 702 / 356-1300
FAX 702 / 356-8917

June 16, 1989

MINERAL
JUN 20 1989
BENEFICIATION DEPT.

Mr. D.E. Crowell
Director - Mineral Beneficiation
ASARCO INCORPORATED
1150 North 7th Ave.
Tucson, AZ 85703

Dear Don:

Enclosed is our proposal (MLIP-71) for heap leach cyanidation testwork on your Arizona gold property.

Thank you for allowing us the opportunity to submit this proposal. We look forward to executing the testwork for you.

Sincerely,

Gene

Gene E. McClelland
Metallurgist/President

GEM:vjm
enclosure

McCLELLAND LABORATORIES, INC.

1016 Greg Street, Sparks, Nevada 89431 702 / 356-1300
FAX 702 / 356-8917

McCLELLAND LABORATORIES, INC.

Proposal MLIP-71

I GENERAL

McClelland Laboratories, Inc. proposes to conduct heap leach cyanidation testwork on a bulk mined ore sample for Mr. D.E. Crowell, ASARCO, Incorporated. The testing program was designed based on information and objectives provided by Mr. Crowell, and on certain of our recommendations. The principal objective of the testing program is to determine optimum heap leach feed size for the ore. Bottle roll tests will be conducted on the silicified and gouge ore samples to confirm the metallurgy of individual samples before they are blended. The location of the deposit and specific geological information about the ore was not provided.

II SAMPLE DESCRIPTION AND SAMPLE REQUIREMENTS

A total of 5.0 tons (minimum) of bulk mined silicified ore will be required for the heap leach portion of the testing program. The ore will be taken from accessible areas in a manner to simulate actual blasted ore. The ore should be received at a ROM (nominal 6 inch) feed size. The ore grade is anticipated to be 0.040 to 0.050 ounce gold per ton. This grade would represent the average ore grade of the deposit.

5-10% of total — About 2 tons of fault gouge material should be submitted, because it is not known, at this point, what weight percentage will have to be blended with the silicified ore.

get AR instructions

III SCOPE OF WORK

A. Sample Preparation and Assay - Bulk Ore

It is understood that the bulk ore (silicified and gouge) will be taken from two accessible mining areas. The as received feed from each area will be blended and split to obtain 400 pounds for preliminary bottle roll tests to obtain individual area metallurgical data. Each separate feed will be stage crushed to an 80 percent minus 3/8 inch feed size for the preliminary tests. Triplicate direct head assay samples will be split from each separate crushed feed.

The rejects from each as received feed will be combined, as instructed by ASARCO personnel, and will be blended by repeated coning using a Bobcat loader. The blended sample will be quartered to obtain 6000 pounds for a column leach test, and 500 pounds for a head screen analysis. The as received rejects will be stage crushed to an 80 percent minus 2 inch feed size. The two inch feed will be blended and split to obtain 2000 pounds for a column leach test and 300 pounds for a head screen analysis. Two inch rejects will be stage crushed to an 80 percent minus 3/8 inch feed size. Fine crushed feed will be blended and split to obtain 1000 pounds for column leaching, 100 pounds for head screen analysis, and sample for triplicate direct head assay. It is recommended that splits for bottle roll tests (5 kilograms) be taken for comparison with results from individual sample bottle roll tests.

B. Bottle Roll Tests - Silicified, Gouge, and Composite

Preliminary direct agitated cyanidation (bottle roll) tests will be conducted on the 3/8 inch feeds to determine precious metal recovery, recovery rate, and reagent requirements. The tests will be run also to compare the metallurgy of the individual bulk samples, and to help establish weight percentages for the composite.

Bottle roll tests will be run for 96 hours at 40 weight percent solids, pH 11.0 with lime, and 2.0 pounds NaCN per ton of solution. Pregnant solutions will be sampled at 2, 6, 24, 48, 72, and 96 hours to establish extraction rates. Cyanide concentration and pH will be determined for each pregnant solution. Cyanide concentration and pH will be maintained at initial levels throughout the leaching cycles. Leached residues will be washed, dried, weighed, and assayed directly for residual precious metal content.

C. Head Screen Analyses-Combined Bulk Ore Column Leach Feed

Head screen analyses will be conducted on the combined bulk ore column leach feeds at each feed size (80 percent minus 6", 2", 3/8") to determine precious metal content and distribution. Ore charges will be wet screened to obtain size fractions ranging from the top size to minus 65 mesh. Size fractions and weights for each feed size are as follows:

1) 6", 500 lbs, +6", -6 +4", -4 +2", -2 +1", -1 +3/4", -3/4 +1/2", -1/2 +1/4", -1/4" +10M, -10 +20M, -20 +35M, -35 +65M, -65M
2) 2", 300 lbs, +2", -2 +1", -1 +3/4", -3/4 +1/2", -1/2 +1/4", -1/4" +10M, -10 +20M, -20 +35M, -35 +65M, -65M
3) 3/8", 100 lbs, +3/8", -3/8 +1/4", -1/4" +10M, -10 +20M, -20 +35M, -35 +65M, -65M

Head screen analysis results will be compared with subsequent tail screen results to obtain recovery by size fraction data.

D. Column Percolation Leach Tests - Combined Bulk Ore

Column percolation leach tests will be conducted on the combined bulk mined ore sample at three feed sizes (80 percent minus 6", 2", 3/8") to determine precious metal recovery, recovery rate, and reagent requirements under simulated heap leaching conditions. Column tests at three feed sizes along with head and tail screen results will optimize heap leach feed size for the bulk ore. The three feed sizes were selected to simulate three crushing stage discharge products. Column leach tests will be conducted in 24" I.D. x 18' high (6" feed), 15" I.D. x 18' high (2" feed), and 12" I.D. x 18' high (3/8" feed) columns for the combined bulk ore sample. Ore charges will be agglomerated before leaching if necessary. Columns will be loaded in a manner to minimize particle segregation. Ore bulk densities will be measured before leaching.

see Mining Eng. latest issue Small columns just as good

Leaching will be conducted by applying cyanide solution (2.0 pounds NaCN per ton of solution) over the ore charges at a rate of 0.005 gpm/ft^2 of column cross-sectional area. Pregnant solutions will be collected each 24 hour period. Effluent volumes will be measured by weighing and samples will be taken for conventional A.A. gold and silver analysis. A.A. analyses will be checked using the "lead boat" assay method the first 10 days of leaching. Cyanide concentration and pH will be

determined for each pregnant solution. Pregnant solution will be passed through three stage carbon circuits for adsorption of dissolved values. Carbon charges will be advanced as value breakthrough occurs. Barren solution, with appropriate make-up reagent, will be recycled to the ore charges daily. A 60 day leach cycle is planned, but may be longer if sufficient values are still being extracted. Rest cycles may be allowed when pregnant solution grades approach analytical detection limits to determine if subsequent solution grades can be improved. Ore charges will be allowed to soak in residual cyanide solution (column drained) during rest cycles. Ore charges will be water washed after leaching to recover dissolved values and to remove free cyanide. Wash solutions can be preserved and saved for various cyanide analyses once State environmental requirements are established. Costs for environmental work for permitting purposes are not provided in this proposal. Those costs will be provided once a decision is made by ASARCO personnel concerning environmental requirements.

After leaching and washing, ore charges will be removed from the columns and retained moisture samples will be taken immediately. Moistures required to saturate ore charges and agglomeration moistures will also be determined. Ore bulk densities will be measured after leaching, before discharging the columns. Leached residues will be screen assayed to determine residual precious metal content and distribution. Sample of each leached residue will be retained in moist form for potential environmental work.

E. Report

A written report concerning metallurgical data, data evaluation, conclusions, and recommendations will be prepared and submitted upon completion of the testing program.

IV COST OF TESTWORK

A. Bulk Ore Preparation and Triplicate Head Assays, reimbursable cost - estimate, 60 man hours @ $30.00 per hour (including assays). . . . . $ 1,800.00

B. Bottle Roll Tests, Silicified, Gouge, and Composite, including solution analyses and tail assays - 3 @ $245.00. . . . . $ 735.00

C. Head Screen Analyses - Combined Bulk Ore Column Feeds, including fraction assays.

1) 6" feed, 500 lbs, 12 fractions. . . . . $ 500.00
2) 2" feed, 300 lbs, 10 fractions. . . . . $ 400.00
3) 3/8" feed, 100 lbs, 7 fractions . . . . . $ 300.00

D1. Column Leach Tests, including agglomeration, solution analyses and "lead boat" checks, (60 days). Costs also include carbon and barren solution analyses.

1) 6" bulk feed, 6000 lbs, 24" I.D. x 18" column. . . . . $ 4,500.00
2) 2" bulk feed, 2000 lbs, 15" I.D. x 18" column. . . . . $ 2,900.00
3) 3/8" bulk feed, 1000 lbs, 12" I.D. x 18" column. . . . . $ 2,500.00

D2. Tail Screen Analyses - Combined Bulk Ore Residues

1) 6" feed, 500 lbs, 12 fractions. . . . . $ 500.00
2) 2" feed, 300 lbs, 10 fractions. . . . . $ 400.00
3) 3/8" feed, 100 lbs, 7 fractions . . . . . $ 300.00

E. Report Preparation and Typing - Estimate . . . $ 1,200.00

Total Estimate: $16,035.00

Costs may vary if the scope of work is modified and if the leaching cycles are longer than 60 days. An additional cost of $15.00 per day per column test will be included if leaching cycles are longer than 60 days (rest cycles not included).

V SCHEDULE

Preparation procedures can begin upon receipt of the samples. About 1.5 weeks should be allowed for preparation and initial assay results. It is estimated that the testwork will be completed and reported 12 weeks after preparation. Work will be done concurrently as much as possible to save time. The schedule may vary if the scope of work or column leaching period changes.

VI DEPOSIT AND PAYMENT SCHEDULE

A deposit is not requested of ASARCO. Interim invoices for completed work will be submitted on a monthly basis. Verbal updates and/or interim tabulated data will be provided on a weekly basis if sufficient new data is available.

Gene E. McClelland

Gene E. McClelland
Metallurgist/President

ASARCO

Southwestern Exploration Division

June 19, 1989

R.L. Brown
New York

Monthly Report
June 1989
Yarnell Project

Drilling commenced on the Phase II Program on 6/3/89. The delay in starting on time, 6/1/89, was due to logistical problems and drill site availability. This problem was resolved the first day of drilling. Sixteen of the twenty six holes were completed during the drilling cycle from 6/2/89 to 6/14/89. Preliminary results are included in the Quarterly Reports to J.D. Sell. The mineralization is still open on all three sides and appears to be getting stronger and more continuous to the southwest. Down dip mineralization as seen in Hole #17 is present. Additional holes will be drilled further down dip to test for extension. The holes drilled to the northeast on extension seem to suggest a definite weakening of the zone, but additional holes will be drilled to determine the strike extension.

During the next cycle we will finish the proposed 26 holes for approximately 7000'. An additional 8-10 holes are proposed to check SW strike extensions and infill drilling of the main zone for a total of ±10,000'.

In addition to the drilling we will begin an aerial survey by Western Air Maps and we hope to have all ground control in place by month's end. We also plan to take a bulk metallurgical sample (±6000#) from the open cut and send it to Reno for detailed analysis. This is being coordinated through the Mineral Beneficiation Dept. Additionally, the remainder of the YAR claims will be surveyed and all drill holes will be located.

Since John Malusa has been assigned to the project I will now have the time to map and reconnaissance the outside areas as planned.

Norgold Resources is scheduled to be on the property on June 20-22, 1989. No recent Phase II data will be released without prior confirmation from J.D. Sell, et al. Norgold has been informed of this.

Mark A. Miller, mek

MAM:mek

Mark A. Miller

cc: J.D. Sell
W.L. Kurtz

JDS

6/19/89

FROM: J. D. SELL

TO: R. L. Brown

Attached is Mr. Gaeg's note & map on the stacking of the SE 1/4 of Sec. 15.

The open space on the east side is covered by the overlap of VAR claims in the adjacent Section 14.

J.D. Sell

ASARCO

Southwestern Exploration Division

June 15, 1989

J.D. Sell

YAR 31 thru 39
Lode Claims
Yarnell Project
Yavapai County, AZ

Attached is a map of the recently staked YAR claims Nos. 31 thru 39. All posts are set and location notices were recorded, and the notices are now being processed by the BLM.

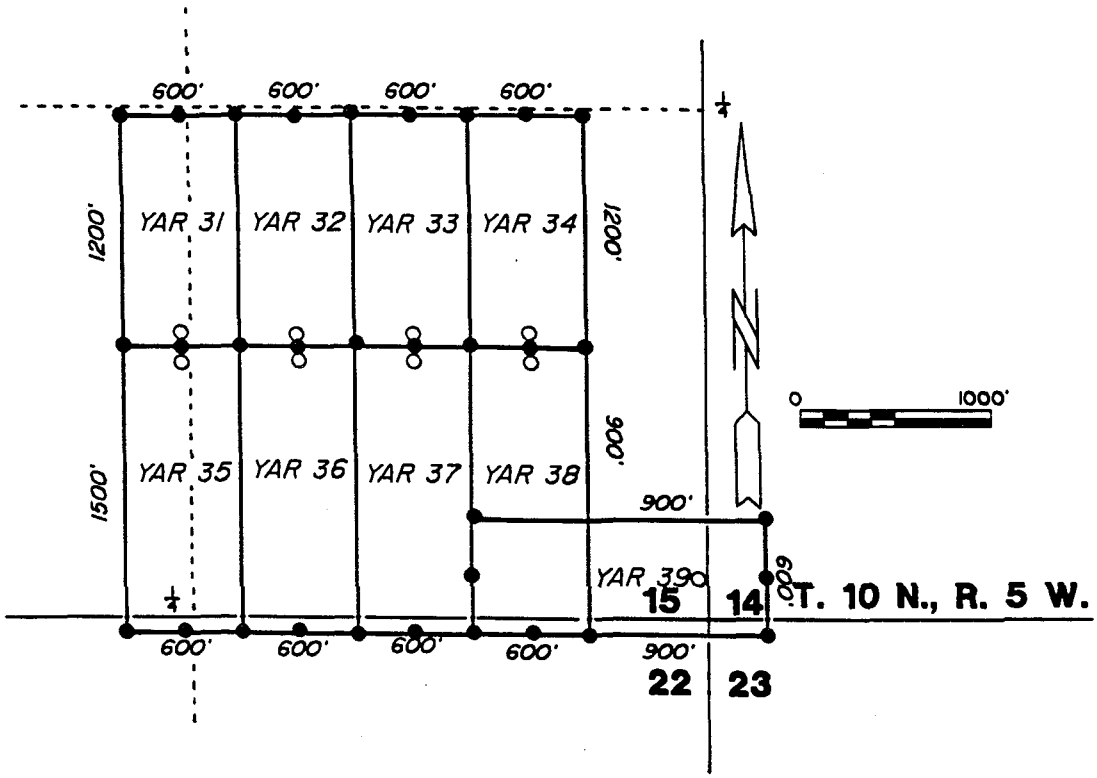
I discovered an error in writing the original location notices. This error has been corrected on amended notices of location. These notices will be placed in the field and recorded next week.

William D. Gay

William D. Gay

WDG:mek
Att.

cc: W.L. Kurtz


600'
600'
600'
600'
1200'
YAR 31
YAR 32
YAR 33
YAR 34
1200'
1500'
YAR 35
YAR 36
YAR 37
YAR 38
900'
900'
YAR 39
600'
0
1000'
15
14
T. 10 N., R. 5 W.
600'
600'
600'
600'
900'
22
23

ASARCO

Southwestern Exploration Division

JDS

June 19, 1989

FILE NOTE

Yarnell Agreement
Yavapai County, AZ

Jerry Haggard called on 6/19/89 to say that Leo Smith now has the Norgold Agreement and has three minor changes that need to be in it. Jerry thinks he'll get the agreement back by Wednesday/ Thursday and have it out by the end of the week -- providing the voiced corrections are the same as the written when the agreement returns.

James D. Sell

JDS:mek

James D. Sell

cc: R.L.Brown/F.T.Graybeal
W.L.Kurtz

ASARCO Southwestern Exploration Division JDS

June 19, 1989

M.A. Miller

Further Drilling
Yarnell Project
Yavapai County, AZ

As discussed with you, I concur that you should finish the drill sites which you have on your proposal map.

In addition, moving off to the southwest of #11 and #26 is justified.

Several holes south of #11 and #23, starting just above the fault, and perhaps south of #24 and #25 as well, will provide the SWMD additional information on the early part of the mining operation. Also in this regard, a hole in the northeast part of the open cut, southeast of hole #16 would confirm the remaining ore, with several holes east of holes #16, 2, and 18 to test the thicker ore column in this area.

James D. Sell

JDS:mek

James D. Sell

cc: W.L. Kurtz

2 copies sent to
M. Miller (Yarnell)
1 file
1 M. Miller (Tucson)

JDS

Longyear

Longyear Company
7773 W. Seldon Lane
Peoria, AZ 85345

Telephone: (602) 486-1881
Fax: 486-1885

June 19, 1989

Asarco, Inc.
PO Box 5747
Tucson, Arizona 85703
Mr. Mark Miller

Subject: 6" coring project located near Yarnell, Arizona.

Dear Mr. Miller,

Attached for your consideration is Longyear's drilling proposal for the 6" coring project near Yarnell, arizona.

We understand that Asarco, Inc. will provide a dozer at no cost to Longyear Company to build and maintain roads, drill sites and dig sumps as required. Also that a source of water will be provided.

We have the equipment and crews available to start this work anytime after July 4, 1989.

We appreciate this opportunity to offer you our services. If you have any questions or require additional information, please contact me.

Yours truly,

LONGYEAR COMPANY

Allen Krause

Allen Krause
Manager Southwest Zone
Contract Drilling Division

C: R. Beddow

AK:kl

ASARCO Incorporated
JUN 21 1989
SW Exploration

Longyear

DRILLING PROPOSAL

Submitted by: Longyear Co.
7773 West Seldon Lane
Peoria, AZ 85345
(902) 486-1881

To: Asarco, Inc.
PO Box 5747
Tucson, Arizona 85703
Attn: Mr. Mark Miller

Date June 19, 1989

Subject: Drilling Program Located Near –
Yarnell, Arizona

1. Mobilization and Demobilization of personnel and equipment –

a. Coring rig: Mobilization – $ 750.00 Demobilization – $ 750.00

b. Rotary rig: Mobilization – $ _____ Demobilization – $ _____

2. Overburden Drilling (or collaring hole)

From (ft)	To (ft)	Rock Bit Size		Diamond Bit Size	
		10-3/4"			
0	50	$ 24.50	$	$	$

3. Rotary Drilling

From (ft)	To (ft)	Hole Size(s)		
N/A		$	$	$

4. Diamond Core Drilling

From (ft)	To (ft)	Core Size(s)			
		6" core			
0	400	$ 66.30	$	$	$

Angle hole drilling ..... Add $ N/A Per Ft.

LONGYEAR COMPANY
DRILLING PROPOSAL

To: Asarco, Inc. Date June 19, 1989

	Rate per Hour	
	Rotary Rig	Core Rig
5. Rig Time (2 man crew)		
a. Cementing – hole preparation, grouting and drilling (including necessary rod handling time)	$	$ 130.00
b. Hole stabilizing and/or plugging	$	$ 130.00
c. Installing and pulling casing	$	$ 130.00
d. Rigging up and down	$	$ 115.00
e. Moving between holes	$	$ 115.00
f. Drilling, reaming, casing, stabilizing, etc. (hourly contracts)	$	$ N/A
g. Re-entry and cleaning out ~~sick~~ cased hole, plus cost of all bits and supplies	$	$ 130.00
h. Installing and dismantling water lines	$	$ N/A
i. Tractor service (or at Longyear's hired cost)	$	$ furnished by client
j. Hole survey or inclination test	$	$ N/A
k. Wedging operations, plus cost of wedge and wedge bits	$	$ N/A
l. Cement setting	$	$ 115.00
m.	$	$
6. Standby or Delays		
For the convenience or the responsibility of client (3 man crew)	$	$ 115.00

7. Casing and Casing Shoe (at Longyear List Price)

a. Left in hole at client's request 8.227 ID T&C our cost FOB jobsite + 15% %
estimated cost per foot $15.78

b. Lost through normal drilling operations. %

8. Reaming ~~Per ft.~~ at rate of $130.00 per hour plus bits used.

AT DEPTH	to	to	to	to
to ft.	$	$	$	$
to ft.				
to ft.				
to ft.				

LONGYEAR COMPANY
DRILLING PROPOSAL

To: Asarco, Inc.

Date June 19, 1989

9. In hole materials Invoicable to Client (At Longyear FOB job cost plus 15 %)

a. Drill mud ..... Yes X No ____

b. Mud additives ..... Yes X No ____

c. Hole stabilizing or plugging materials ..... Yes X No ____

d. Cement ..... Yes X No ____

e. Hole plugs ..... Yes X No ____

f. Other Diesel to mix mud additives YES X

10. Water Furnishing Charges

a. Water truck rental charge ..... $ 1,200.00 per month

b. Water truck mileage ..... 1.00 per mile

c. Water truck driver (full time, if required) ..... $ 22.00 Per hour

d. Water, if purchased ..... At Longyear's cost

e. Water line installation ..... $ N/A Per hour

11. Access Roads and Drill Sites will be Prepared and Maintained by:

(X) Client

(____) Longyear Co. ..... @$ ____ Per hour

12. Core Boxes

____ size our cost FOB jobsite + 15% estimated cost $20.00 each ..... @ $ ____ each

____ size ..... @ $ ____ each

13. Footage Compensation (hourly contracts) ..... $ N/A included in footage price per foot drilled

14. Per Diem Charge To cover living allowances for crews ..... $ ____ per man per day worked

15. Bits and Setting Charges (at Longyear's list price)

a. Rotary or rock bits 10-3/4 rock bit - $397.73 each .... Yes X No ____

b. Diamond bits and shells 6" core bit - $2,623.00 each .. Yes X No ____

NOTE: should average at least 100 feet per 6" bit.

16. Other

LONGYEAR COMPANY
DRILLING PROPOSAL
GENERAL SPECIFICATIONS

To: Asarco, Inc. Date June 19, 1989

17. Anticipated Requirements and Conditions

a. 1 Drill(s); type Longyear 44 truck mounted drill

b. 1 Shift(s) per day (3 man crew at 10 hours per shift).

c. 5 Day(s) per week

d. Minimum contract footage 400 ft.

e. Number of holes 3 or more .

f. Maximum depth 400 ft.

g. Average depth 100 ft. of coring

h. Attitude of holes (from horizontal)
1) Vertical X .

2) Angle at _____ degrees.

i. Average depth of overburden 0-20 ft. Composition Glacial fill

j. Size of hole or core size required: 6" core

k. Rock type to be drilled: Decomposed Granite

l. Other: _____

18. Insurance
We will carry Comprehensive General Liability and Automobile Insurance covering personal injury and property damage and also statutory Workmen's Compensation Insurance. Certificates showing these coverages will be furnished upon request.

19. Invoices
a. Invoices covering the work performed will be prepared as promptly as possible after the fifteenth and last day of each month and payment shall be due upon receipt of invoice.

b. Invoices arising from this project will be subject to all applicable state taxes (Sales, Use, Gross Recipts, Privilege, etc.)

20. Prices quoted herein are firm only if this proposal is accepted on or before July 15, 1989 and if work is commenced within a reasonable period of time.

21. This proposal together with its covering letter will constitute the terms and conditions of this working agreement. Your authorized signature in the space provided below will acknowledge your acceptance and will validate the agreement.

ACCEPTED:

Company _____

By _____ Title _____

Date _____

By: Allen Krause

Allen Krause
LONGYEAR COMPANY
Manager Southwest Zone
Contract Drilling Division

JDS

ASARCO

Exploration Department
Frederick T. Graybeal
Chief Geologist

June 20, 1989

Mr. J. D. Sell
Tucson Office

ASA

JUN 22 1989

SW Exploration

Activity Chart
Yarnell Project
Arizona

Dear Mr. Sell:

Thank you for your note of June 16, 1989 with the revised activity chart for the Yarnell Project attached. We agreed that the end of each month you will summarize in one page or less what work was completed, what work should of been completed but was not completed and why, and when the uncompleted work will be brought back on schedule. Any other comments relevant to the project would also be discussed. You would write this to Mr. Kurtz with a copy of the summary and activity chart to the New York Office.

Very truly yours,

F. T. Graybeal

F. T. Graybeal

FTG:mc

cc: W. L. Kurtz

JDS

ASARCO

Exploration Department
Frederick T. Graybeal
Chief Geologist

June 20, 1989

Mr. J. D. Sell
Tucson Office

ASARCO
JUN 22 1989
SW Exploration

Activity Chart
Yarnell Project
Arizona

Dear Mr. Sell:

Thank you for your note of June 16, 1989 with the revised activity chart for the Yarnell Project attached. We agreed that the end of each month you will summarize in one page or less what work was completed, what work should of been completed but was not completed and why, and when the uncompleted work will be brought back on schedule. Any other comments relevant to the project would also be discussed. You would write this to Mr. Kurtz with a copy of the summary and activity chart to the New York Office.

Very truly yours,

F. T. Graybeal

F. T. Graybeal

FTG:mc

cc: W. L. Kurtz

Michael Phillips
604-685-8730
Granville Log Office

Miscellaneous
Drafts!

Norgold
Heintzelman
Layton
Western Bldg
Jenkins
Claims

FROM: W. L. KURTZ 6/26/84

TO: JDSell

A little dirty linen.

May make 4 xtra copies: ok

1 – WLK
1 – ~~Mac~~ JDS/WDG
1 – Mark Miller
1 – xtra

fdg Tim are in Yarrell (orig filed)

JDS

WILLIAM A. EVANS [1907-1978]
JOS. S. JENCKES, JR. [1908-1970]

JAMES M. BUSH
STEPHEN W. POGSON
FRED E. FERGUSON, JR.
GARY H. FRY
LEON D. BESS
ROBERT J. HACKETT
JOSEPH P. HIENTON
AMY R. COY
NATHAN R. NIEMUTH
JOHN W. MAIN, JR.
DON J. MINER
RANDALL S. YAVITZ
MICHAEL V. MULCHAY
DANIEL L. MUCHOW
LARS O. LAGERMAN
JAMES A. CRAFT
DOUGLAS E. MCALLISTER
DEREK L. SORENSON
BRAD K. KEOGH
RICHARD LIEBERMAN
RENEE B. GERSTMAN
JONATHAN H. RANDALL
ROBERT L. DYSART
CHRISTOPHER H. BAYLEY
JEFFREY A. GOLDBERG
DAVID M. REAVES
BARBARA J. DAWSON
MARGARET R. MAHONEY
VICTOR S. CASEBOLT, II
WILLIAM K. CHAPMAN

EDWARD C. LEBEAU
NEWMAN R. PORTER
JERRY W. LAWSON
JERRY L. HAGGARD
F. PENDLETON GAINES, III
JAMES G. SPEER
WILLIAM L. KURTZ
JAMES R. HIENTON
BARRY J. DALE
RICHARD L. SALLOUIST
DAVID J. OUIMETTE
BARBARA MCCONNELL BARRETT
STEVEN A. HIRSCH
JOHN J. FRIES
LINDA H. MILES
ANDREW M. FEDERHAR
JAY S. KRAMER
ERIC A. GROTEN
MELISSA N. TORRES
GREG R. LORD
TIMOTHY R. HYLAND
ROBERT J. ITKIN
JAY A. ZWEIG
DONALD B. ROHBOCK
H. BARRY HOLT
LEE H. STOREY
JOHN A. HINK
M. ELLEN RIDGE
GRAHAME G. CAPP
WILLIAM M. DEMLONG

*ADMITTED TO PRACTICE IN THE DISTRICT OF COLUMBIA AND UTAH

LAW OFFICES

Evans, Kitchel & Jenckes, P.C.

2600 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004-3099
(602) 234-2600

DENISON KITCHEL
JOHN F. BOLAND, JR.
OF COUNSEL

FACSIMILE 602-234-8856

SCOTTSDALE OFFICE
SUITE B-111
6991 EAST CAMELBACK ROAD
SCOTTSDALE, ARIZONA 85251-2467

TUCSON OFFICE
1 SOUTH CHURCH AVENUE
SUITE 530
TUCSON, ARIZONA 85701-1612

June 23, 1989

Mr. W. L. Kurtz
Manager, U.S.A. Division
Western Exploration Division
ASARCO Incorporated
1150 North 7th Avenue
P.O. Box 5747
Tucson, Arizona 85703

RECEIVED
JUN 26 1989
EXPLORATION DEPARTMENT

Re: Yarnell (Norgold) Project - Title Opinion

Dear Mr. Kurtz:

Enclosed is our full title opinion on the patented and unpatented mining claims in the Yarnell Project described in Exhibit "A" to that opinion. Because that opinion is quite lengthy, for your convenience, we will summarize in this letter the significant title defects and recommended actions respecting those claims as follows:

1. There are several easements over the Juniper, Edgar, Triangle and Edmond patented mining claims identified in exceptions 3 through 7 on pages 4 and 5 of the opinion. Although these easements do not affect the mineral estate, arrangements would likely be necessary with the current owners if facilities exist on those easements which would be affected by mining.

2. Exception 4 on page 4 also identifies a 150'x 500' rectangular piece of land within the Juniper claim which is currently owned by the Atchinson, Topeka and Santa Fe Railway Company.

3. Exception 7 on page 5 also identifies a 75' x 75' x 75' x 70' tract of land in the center of the Juniper patented claim which is owned by Maricopa County. However, all mineral rights were reserved from that conveyance to Maricopa County. Both the Santa Fe Railway Company and the Maricopa County lands are shown on the plat attached as Exhibit "C" to the enclosed opinion.

4. Exceptions 8 and 9 identify two leases dated in 1958 and 1961 affecting the patented claims. Due to their age, it is likely that these leases have expired. However, before significant development of the property would take place, it would be advisable to seek to obtain formal terminations of those leases.

5. Exception 10 on page 6 identifies a realty mortgage dated in 1979 which has not been released of record. It is likely that the debt secured by this mortage has been satisfied. However, it would be advisable to obtain a formal release of the mortgage before significant development takes place on the Triangle and Edmond patented claims.

6. Comment No. 3 on pages 8 and 9 discusses an attempted forfeiture proceeding for failure to contribute to assessment work carried out by the prior owner of the Victoria Nos. 1 through 4 unpatented mining claims against West Beroy Inc. which owned an undivided one-half interest in those claims. However, the forfeiture proceedings were defective in numerous respects and probably did not cause the interest of West Beroy Inc. to be forfeited. The only means by which to clear this interest would be to acquire the interest from West Beroy Inc. or reinstitute the forfeiture proceedings. Unfortunately, reinstituting the forfeiture proceedings would provide West Beroy Inc. with another opportunity to cure its default and preserve its interest in the claims.

7. Exception 2 on page 9, and Comment No. 4 and Requirement D on page 10 refer to the agreement between Western Building and Mining Company and Norgold. Although that agreement purports to grant an interest in the mining claims identified in Comment No. 4 to Norgold, there is no recorded conveyance of those claims from A. J. Roman and Katheryn A. Gooding to Western Building and Mining. A. J. Roman is shown to be President of Western Building and Mining. A deed should be obtained from Mr. Roman and Ms. Gooding conveying those claims to Western Building and Mining and making them subject to the Mining Agreement with Norgold.

8. Exception 4 on page 10 identifies a right of way issued by the BLM to Arizona Public Service Company over the Victoria 4 and 5 claims. Any development of those claims that would affect any facilities within that right of way would likely require a rerouting of the transmission line facilities.

9. Item 1 on page 11 and items 1 through 8 on page 19 identify portions of the Norgold unpatented mining claims which overlap patented land and other senior unpatented claims. Those unpatented claims would not be valid to the extent of the overlap. Further, it should be verified that the mineral discoveries on those unpatented claims on which their validity depends do not lie within the overlap areas.

10. The unpatented mining claim location notices identified in Requirement G on page 14 and in Comment No. 9 on page 15 contain the irregularities discussed in the opinion which should be corrected by amended location notices.

11. Comment Nos. 10 and 11 on page 17 and Requirement I on page 18 refer to defects in the assessment work affidavits for the 1986 and 1988 assessment years respecting the Alvin J, Katheryn A, Katheryn D and Pennsylvania No. 1 unpatented claims. The curative actions recommended in Requirement I on page 18 should be carried out with respect to those claims.

Although this letter is intended to bring to your attention the most significant defects in the Norgold claims, we recommend that attention be given to the enclosed complete title opinion. Please contact us if you have any questions regarding this title opinion.

Sincerely,

Jerry L. Haggard

Jerry L. Haggard
For EVANS, KITCHEL & JENCKES, P.C.

JLH/jb
Enclosure

cc: James L. Woods, Esq.

JDS

ASARCO

Exploration Department
Southwestern United States Division

James D. Sell
Manager

Overnight Letter
FEDERAL EXPRESS

June 23, 1989

Mr. Christopher Moat, President
Norgold Resources (US) Inc.
2380 Harbour Centre
P.O. Box 12122
555 West Hastings Street
Vancouver, B.C., V6B 4N6
Canada

Yarnell Project
Yavapai County, AZ

Dear Mr. Moat:

Enclosed is Asarco's check for the $15,000 payment due July 1, 1989 as stated in the signed January 25, 1989 letter agreement.

Sincerely,

James D. Sell

James D. Sell

JDS:mek
Enc.

cc: R.L. Brown
W.L. Kurtz
M.A. Miller
C.L. Snow

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

Payee No.	Month	Voucher No.
	Jun 1989	6-219

ASARCO Incorporated 180 Maiden Lane New York, N.Y. 10038

Payment per agreement $15,000.00

Detach Before Depositing

ASARCO

ASARCO Incorporated
180 Maiden Lane
New York, N.Y. 10038

50-937
213

Check No. 45003903

To The Chase Manhattan Bank, N.A.
Syracuse, New York

New York June 23, 1989

Pay The sum of $15,000 and 00 cts Dollars $15,000.00 US

To the Order Of
NORGOLD RESOURCES (US) INC.
PO Bx 12122
Vancouver, B.C. Canada V6B4N6

ASARCO Incorporated

C L Shaw

S K Myers

⑈45003903⑈ ⑆021309379⑆ 601⑈2⑈98458⑈

JDS

ASARCO

Exploration Department
Southwestern United States Division

James D. Sell
Manager

CERTIFIED MAIL
RETURN RECEIPT

June 23, 1989

Mr. A.J. Roman, President
Western Building & Mining Co., Inc.
P.O. Box 4006
Reading, PA 19606

Western Building Monthly
Payment
Yarnell Project
Yavapai County, Arizona

Dear Mr. Roman:

Enclosed is the Asarco check for $1,000 U.S. for the monthly payment of July 1, 1989 due Western Building as per Article 4 of the Norgold Resources, Inc. - Western Building and Mining Co., Inc. Agreement dated December 30, 1989.

Sincerely,

James D. Sell

James D. Sell

JDS:mek
Enc.

cc: W.L. Kurtz
C.L. Snow
C. Moat - Norgold

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

VOUCHER NO. 6-221 DATE Jun 1989

ASARCO INCORPORATED
TUCSON OFFICE
TUCSON, ARIZONA 85703

Monthly payment for July 1, 1989 $1,000.00

DETACH BEFORE PRESENTING FOR PAYMENT

ASARCO

ASARCO INCORPORATED
TUCSON OFFICE
TUCSON, ARIZONA 85703

91-2/1221

No. 0031185

DOWNTOWN OFFICE
THE VALLEY NATIONAL BANK
TUCSON, ARIZONA

June 23, 1989
$1,000.00

PAY
TO THE ORDER OF

The sum of $1,000 and 00 cts

ASARCO INCORPORATED
TUCSON OFFICE

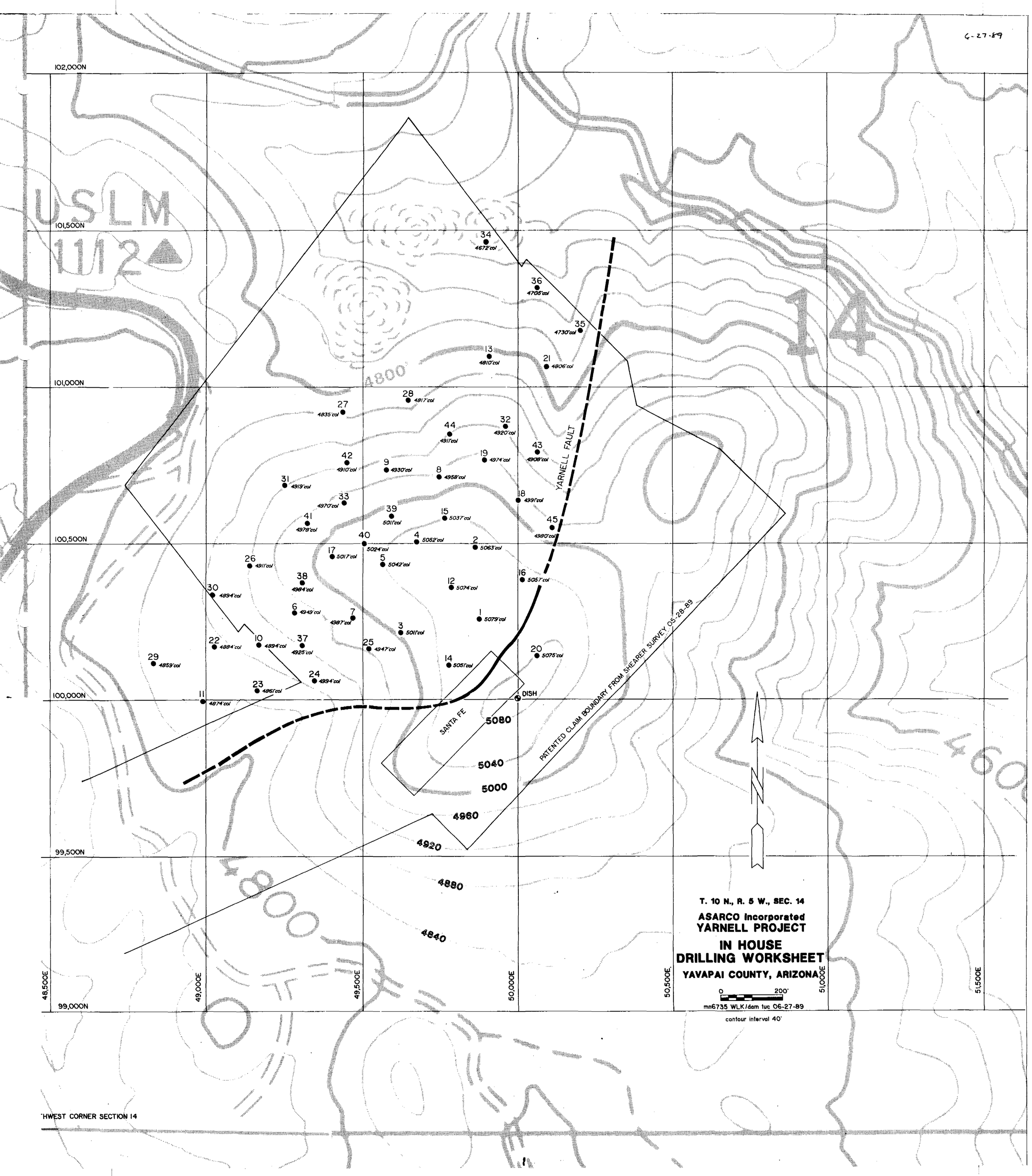
WESTERN BUILDING & MINING CO., INC.
P O Bx 4006
Reading, PA 19606

C L Grow

S H Myers

⑈031185⑈ ⑆122100024⑆ 2000⑈0673⑈

* NO.123(JUNE 27, 1989) * GEORGE CROSS NEWS LETTER LTD. * FORTY-SECOND YEAR OF PUBLICATION *


6-27-89
102,000N
101,500N
101,000N
100,500N
100,000N
99,500N
99,000N
48,500E
49,000E
49,500E
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50,500E
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USLM
1112
4800'
4840
4880
4920
4960
5000
5040
5080
YARNELL FAULT
SANTA FE
DISH
PATENTED CLAIM BOUNDARY FROM SHEARER SURVEY 05-28-89
34 4672'col
36 4705'col
35 4730'col
13 4810'col
21 4806'col
28 4817'col
27 4835'col
44 4911'col
32 4920'col
43 4908'col
42 4910'col
9 4930'col
19 4974'col
8 4958'col
31 4919'col
33 4970'col
18 4991'col
39 5011'col
15 5037'col
41 4978'col
45 4980'col
40 5024'col
4 5052'col
2 5063'col
17 5017'col
5 5042'col
26 4911'col
16 5057'col
38 4984'col
12 5074'col
30 4894'col
6 4949'col
7 4987'col
1 5079'col
3 5011'col
22 4884'col
10 4894'col
37 4925'col
25 4947'col
20 5075'col
29 4859'col
14 5051'col
24 4994'col
23 4861'col
11 4874'col
T. 10 N., R. 5 W., SEC. 14
ASARCO Incorporated
YARNELL PROJECT
IN HOUSE
DRILLING WORKSHEET
YAVAPAI COUNTY, ARIZONA
0 200'
mn6735 WLK/dam tuc 06-27-89
contour interval 40'
HWEST CORNER SECTION 14

ASARCO

Exploration Department
Tucson Office

TELECOPIER

Date: 6/28/89

TO:

NAME: Brian Edgar

LOCATION: FAX 604-681-7116

FROM: Mark A. Miller

YOU WILL RECEIVE 4 PAGE(S) OF COPY EXCLUDING THIS COVER SHEET.

If you do not receive all pages, please call:

602-792-3010, Ext. 324

CC: M.A. Miller
J.D. Sell

INSTRUCTIONS

FOR FILING NEW PROSPECTING PERMIT APPLICATION

1. Filing fee is $50.00 per application.

2. One section or any portion of one section per application.

3. Minimum acreage per application shall be a rectangular subdivision of 20 acres in line with the public land survey.

4. All questions on the application must be completed.

5. If the applicant is a corporation, partnership or Trust, you must submit a copy of the Articles of Incorporation which has the Arizona Corporation Commission stamp of approval, the partnership papers, or the Trust document.

6. Provide a map of the section applied for, showing ingress and egress.

7. The application must be signed by the applicant(s) or an appointed agent. If an agent is filing for the applicant, a notarized Power of Attorney must be filed with the Department. The filing fee for a Power of Attorney is $50.00.

8. The application form used must be the Department form as prescribed by the Commissioner.

9. If all of the above are not in order, your application will be returned to you with an explanation of the problem.

CONDITIONS OF A PROSPECTING PERMIT

Normal processing time is thirty to forty-five days from the time the application is filed with the State Land Department (The Department). If your application is approved, a billing statement and bond form will be mailed to you at that time. YOU WILL NOT HEAR FROM THE DEPARTMENT BEFORE THE ABOVE MENTIONED TIME PERIOD UNLESS THERE IS A PROBLEM.

Prospecting permits are governed by Arizona Revised Statutes. Therefore, PLEASE NOTE THE DUE DATE on anything sent to you in regard to the issuance of the permit. The timetables set forth by law are strictly adhered to.

Should your application be approved by the Department, the prospecting permit would AUTHORIZE YOU TO EXPLORE YOUR VALUABLE MINERALS ONLY. This DOES NOT GIVE PERMISSION to remove any valuable minerals from state land - except for testing purposes.

Copies of Rules and Regulations (Title 12, Chapter 5, Article 19) as well as the Arizona (ARS §§27-271 thru 27-275) Statutes that apply to prospecting permits may be obtained from the Secretary of State, Capitol Building, West Wing, 7th floor, Phoenix, Arizona 85007, (602) ~~255-4285.~~ 542-4285

If you have any questions, please contact the Nonrenewable Resources and Minerals Section of the State Land Department at (602) ~~255-4628.~~ 542-4621

1/88

05/26/87 (REV.)

NEW PROSPECTING PERMIT

DEPARTMENTAL USE ONLY		
ACCOUNTING	DATA MGMT	DISPOSITION/INITIAL DATE
Fee: $ 50.00 per section or part thereof.	EXAM:	APPROVED
Date	RE-ASSIGN:	DENIED
	APP TYPE: NEW P. P.	REJECTED
	NO. OF APPS: 1	WITHDRAWN

NEW X

PERMIT APPLICATION NUMBER 08-

APPLICATION FOR MINERAL PROSPECTING PERMIT

ARIZONA STATE LAND DEPARTMENT
1624 WEST ADAMS
PHOENIX, ARIZONA 85007

Arizona State Land Departme
1616 West Adams
Phoenix, Arizona 85007

INSTRUCTIONS

Review the attached Instruction sheet for complete application filing instructions.

I/We _____
(Applicant Name) (Contact Person)

_____
(Address) (City) (State) (Zip) (Phone Number)

hereby make application for mineral exploration or prospecting permit on the State land described below, in accordance with the laws of the State of Arizona, and the rules and regulations of the State Land Department:

NEW APPLICATION:

Section	Township	Range	Legal Description	Acres	County	SLD USE Grant
22	10N	5W	NW¼ SW¼ SE¼	480 M/L	Yavapai	

1. Is this application being filed in conjunction with any other applicant(s), or to assist another applicant in procuring a Prospecting Permit? Yes _____ No X

2. Indicate whether the application is made in the name of an individual, corporation, partnership, trust, joint venture or other type of agreement: Corporation.

(a) If an individual: Date of Birth_____ Married_____ Single_____

x (b) If a corporation submit a copy of the authorization to do business in the State of Arizona obtained from the Corporation Commission. Attached.

(c) If a partnership, trust, or joint venture or other type of agreement, submit a copy of the partnership, trust or agreement document.

(d) If a trust, complete the following for each of the beneficiaries, principals, or wards for whom the applicant will hold title are:

NAME	ADDRESS	AGE	MARITAL STATUS

(e) The trust or other document under which the applicant will hold title is recorded in the County of _____ in book _____ page_____, as document # _____.

3. Are there any abandoned workings on this Section? Yes_____ No_____. If yes, describe:_____

4. Attach a map or plat to this application that shows your route of ingress and egress to the land described in this application. Map attached.

5. Will it be necessary to cross other State lands to reach the land under application? Yes_____ No X.

6. Are there improvements or crops on the land under application? Yes_____ No X
If yes, describe:_____

7. Indicate primary type of mineral for which exploration is being conducted: Gold

8. Indicate the type of exploratory method or methods to be employed:

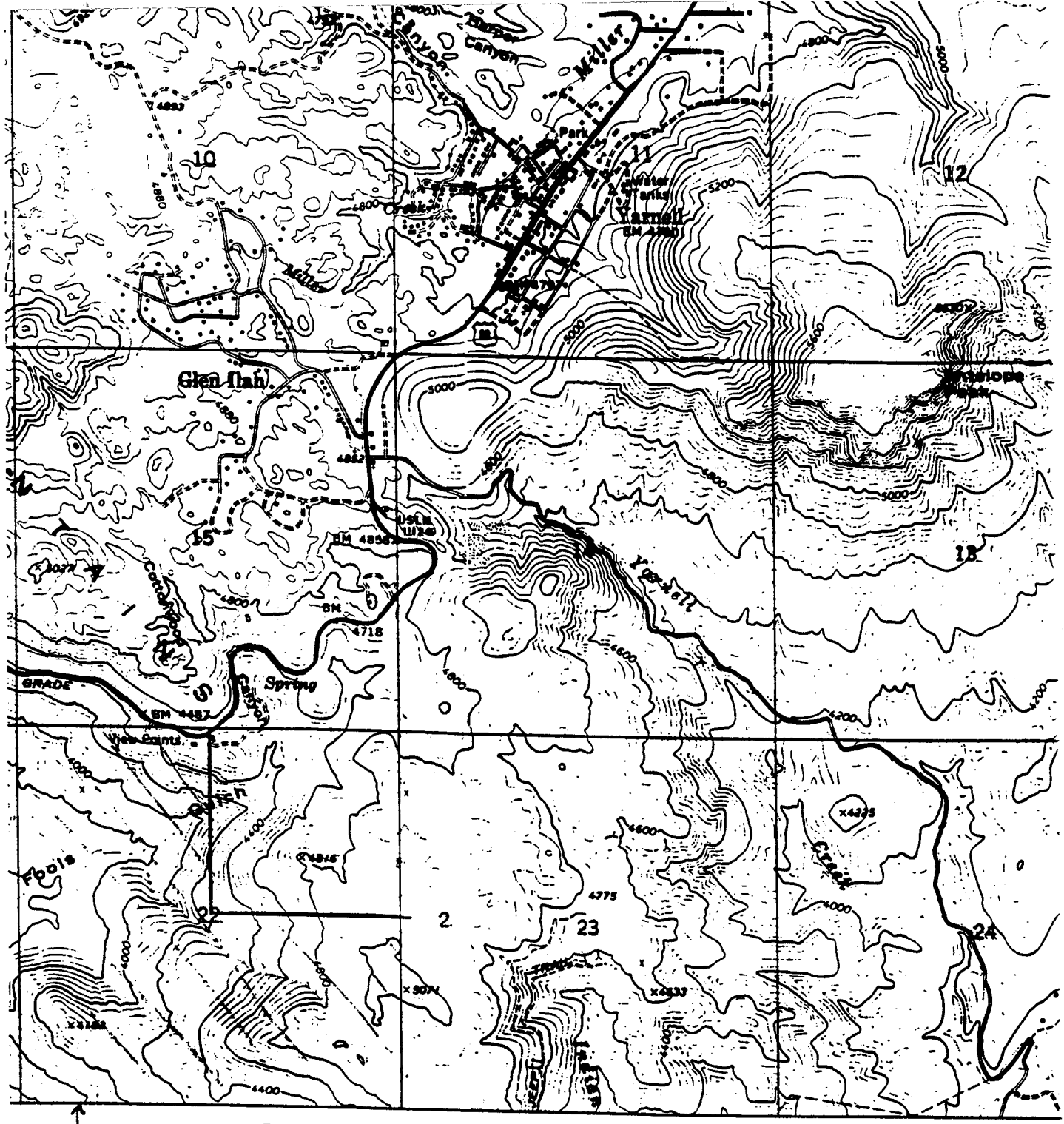
a. EXCAVATIONS: Backhoe_____ Bulldozer_____ Other, specify:_____
b. GEOPHYSICAL: Type_____ Geological X Geochemical X
c. DRILLING : Location: Show location(s) feet to nearest Section lines on plat. Indicate each location on plat, the elevation, hole size, and anticipated T/D. (No drilling shall commence without written approval from the Department; a scaled plat showing above information shall be filed with the request for such approval.).

I/We hereby certify under penalty of perjury that to the best of my knowledge and belief, the information contained herein together with all exhibits, attachments, and statements are true, correct and complete.

Dated this _____, day of _____, 19_____.

(APPLICANT SIGNATURE)

BY_____



PROSPECTING PERMIT
APPLICATION 480 Ac.

ASARCO

Southwestern Exploration Division

JDS

June 29, 1989

W.D. Gay

Rental Vehicle
Yarnell Project
EA-0444
Yavapai County, AZ

It would be to your advantage and Asarco's benefit if you would rent a compact car for your going and coming to and from the Yarnell Project.

Once at the project site I would believe you could find one of the three vehicle up there for your use in surveying the drill sites and other work being done.

As mentioned verbally, a number of holes need to be surveyed before the long holiday weekend.

James D. Sell

JDS:mek

James D. Sell

cc: W.L. Kurtz

31 R

32 T

33 P

34 W

35 X

36 Y

$\frac{50 \times 150 \times 500}{12.5}$

250,000

To JDS

Date 6/29 Time 11:25

WHILE YOU WERE OUT

M M Miller

of

Phone 1-427-3556

Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message Expect to get drill crew back + in our control — drill on 20 or 21 July — Westmont will take it — we have committed drill to them.

Operator M.

AMPAD EFFICIENCY®

23-000 50 SHT. PAD
23-001 250 SHT. DISPENSER BOX

If you have questions call.

VIA - FEDERAL EXPRESS

6/29/89

FROM: W. L. KURTZ

TO: R.L. BROWN

YARNELL

Because I'm faster than the computer — which hasn't been loaded yet enclosed are sections of Yarnell; drill location map; and table of assay intervals (thru YM-31) (YM 32; 33 assays pending)
[I have noted the individual assays I cut; also a few "high" I did not cut]
This is all preliminary but will give you good idea of status

Most notable — thinning of zone down-dip.
SW extension not as wide as hoped
limited NE extension.

Good Met recoveries will allow more stripping to get down-dip extension.

Holes surveyed (coord-elevation) 1-27; topo on sections is approx. (new topo being made). Holes 28-33 approx

I still see ±4 MT @ .04-.05 with moderate-high strip ratio and ±2-2.5 @ .05 with good strip ratio,
Though I have NOT yet made any calculation!!

cc. Not only to JDSell

June 19, '89
Yarnell
Open-Cut
Sample & Test Work

FROM: W. L. KURTZ 6/30/89

TO: JDSEL

Please follow-lead to insure correct collection of 5 ton sample — especially that not too much "vein-gouge" goes into bulk sample

It seems to me that one sample will suffice (i.e. McClellan) so will not have to blend.

You may want, as Cowell suggests, collect a ± 500 # of "vein-gouge" zone for possible study — or blending? —

ASARCO

Exploration Department
Southwestern United States Division

CERTIFIED MAIL
RETURN RECEIPT

June 30, 1989

Bureau of Land Management
Arizona State Office
Mining Claims Section
P.O. Box 16563
Phoenix, AZ 85011

Amended Notices of Location
YAR Claims
Weaver Mining District
Yavapai County, AZ

Gentlemen:

In accordance with Section 314 of the Federal Land Policy and Management Act of 1976, enclosed are the following Amended Notices of Location with maps as recorded in Yavapai County, Arizona.

Name of Claim	Date of Location	Date of Amend.Loc.	Recorded Book	Recorded Pages	BLM Serial Number
YAR-31 thru YAR-39	6/6/89	6/20/89	2158	895 thru 912	AMC 296357 thru AMC 296365

Asarco's check of $45.00 as your filing fee and a stamped return envelope for your receipt and accounting advise are also enclosed.

Very truly yours,

William D. Gay /mek

William D. Gay
Land Engineer, SWED

WDG:mek
encs.

cc: J.D. Sell
M.A. Miller
R.L. Brown
C.L. Snow

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

JDS

ASARCO

Southwestern Exploration Division

June 30, 1989

FILE NOTE

Column Leach Tests
Yarnell Project
EA-0444
Yavapai County, AZ

The June issue of Mining Engineering, pages 440-442, attached, has an interesting article on "Laboratory heap leach testing: How small- and large-scale tests compare," by R.B. Dix of Kappes, Cassiday & Associates.

Their results suggest that if you feel you need to crush to -2", then using the smaller columns would produce comparable when you crush the material to -0.5" and less material would be needed for the test.

Do note their conclusions for some of the variables which need to be thought of.

James D. Sell

JDS:mek
Att.

cc: R.L. Brown
F.T. Graybeal
D.E. Crowell
W.L. Kurtz
Yarnell File

1/31/90 copy to SL, JDS, DEG, FTG → WLK

5,800 tpd ore

JDS

ASARCO

Southwestern Exploration Division

JDS

July 5, 1989

W.D. Gay

Yarnell Project

Mark will be in Yarnell on the 6th and 7th to check panels etc., and then start his vacation.

You should arrange with him to leave his truck/keys at the office for your use while he is on vacation.

James D. Sell

JDS:mek

James D. Sell

announced; along with their opening dates: Sea Bus

July 7, 1989

Looking SE

S line

Station	Depth	Width	Dip	Strike	Remarks
0	1'	10'	0.02		— ~~2' to toe of bench~~ Start 2' below crest, end in muck about 2' above toe.
10	1'	13'	0.09		Key says 15'. start 1' below crest, 1/2 to toe.
20	1'	15'	0.03		crest, toe back in; 20' mark ≅ 10' on prev. stations, may be +4' above toe surveyed.
30	1'	20'	0.03		crest; then 10', then about 8' of muck = 10-15' rough, end 20' at toe. Cut is diagonal to E about 4' of base.
40	1'	20'	0.02		crest. good rock face, to toe
50	1'	20'	0.05		1' below crest; 20' at toe, good rock face. NE trending shear below 50 00 lines. Vertical
60	1'	20'	0.04		good line to toe
70	1'	20'	0.09		good line to toe (1/2' muck ?).
80	1'	20'	0.03		good line to toe ~~± side of rock 20 No panel.~~
90	1'	23'	0.07		good line to toe
100	1'	20'	0.02		— good line, 1' above toe.
110	1'	25'	0.08		good line to toe ± side of rock 20 — No panel.!
120	1'	35'	0.08		good line to toe
130	1'	35'	0.08		good line to toe
140	1'	25'	0.04		start 2' below crest, good line to toe. NE rock felt between lines ←
150	1'	25'	0.02		good line 25' here is ≅ 25' on line 160 & 25 on line 140 felt toe 150 dips NW 80°
160	1'	29'	0.03		good line to toe NE felt between sta ←
170	1'	30'	0.02		good line felt toe 170 dips NW 40°
180	1'	23'	0.06		good line, ends ≅ 25' on line 170 4' muck to toe
190	1'	15'	0.01		good line, end in in reinforced muck. ± ≅ to 20 on line 180
200	1'	20'	0.02		— good line, end in muck ± 2-3' from toe
210	1'	20'	0.29		0-5 in debris, 5-10 cut along E-W hematite face. = Same rock. ends at toe
220	1'	15'	0.08		crest 2' above start, may have included some rubble. end at toe
230	1'	13'	0.02		start 2' below crest (rubble), end ± 3-4' above toe muck
240	1'	14'	0.03		start 2' below crest (rubble), ends at toe in E-W fracture face (hematite)
250	1'	20'	0.08		start 2' below crest (rubble) 10-20' in E-W jew fracture. ends at toe
260	1'	10'	0.07		ends at toe, 10' muck at crest.
270	1'	N.S.	0.04		0-5', near crest down to rubble (muck filled at 240) [No Sample 5-10 MUCK] actually more like 10' of muck then 10-15' in slope fractures as at 240 + 200, and 2' toe
280	1'	18'	0.04		crest, 4' above start, 0-5' face. 5-10 face + rubble, 10-15 horizontal & down fracture 15-18 also great to toe.
290	1'	15'	0.05		± below crest, then near vertical face to toe.
300					—

average = 0.04

average 0.04

Ave 0.07

Out to South

+ shaded

300

290 - cards N around corner further.

No tags from here down to E.

280 - No tags

flts from N 140-170 pass thru here.

270 -

260 - No tags. Flt from N 140-170 at toe here

250 - No tags same as sta 220

240 - No tags - same as sta 220. 4' E to old 250 sample

230 - No tags same as sta 220

220 - No tags 10' face cleaned out but peak in HW.

210 - 0-6' in block FW to toe, E of flt probably HW.

200 - Old 200 sample timber & filled much

190 - No tags. 10' face to toe along rail bed

fault from S140-150 passed thru here from toe N190 thru 200 to crest at 210

180 - 0-5 fill much HW / broke 5-10-15 good blocky. starts to diverge NNE at this pt to sta 290

170 - good sample 0-5 crushed, 5-10-15 too to blocky

160 - 0-5 mostly hem crushed zone, then 5-10 block to toe

150 - in block FW 0-5 to toe.

140 - sample 140

sample cut diagonally from N to S going E. in block FW 0-5 (0 at toe, 5 at upper end at base of rubble

130 -

120 - much NS

110 - Cleaned out zone 5' of hem shear from HW down ± 10' down to E along flt

100 - NS? sheared. flt from S 50-60 passed from toe of N90, thru N100 to crest. See old 100 sample

90 - 5-8 as in sta 80.

80 - 0-5 from HW in crushed 5-8 about ½ crushed, rest blocky

70 - Same as prev sta 60' sample site to toe, 8'

60 - 0-5 HW in gouge. 5-8 in blocky qtz in toe.

50 - NS? old sample in HW No Sample

40 - 3' cut in flt gouge from HW. W side of filled stope opening

N. line → looking N.

JDS

ASARCO

Southwestern Exploration Division

July 5, 1989

J.D. Sell

Open Cut Sampling
for Metallurgical Sample
Yarnell Project

The attached assays represent the sampling of the open cut at Yarnell. Samples were taken both above and below the Yarnell Fault Zone on 10' line spacing with 5' vertical samples. Locations of the sampling lines will be surveyed in and assays plotted accurately.

Do not send out until map is ready

MAM:mek

Mark A. Miller
Project Geologist

cc: W.L. Kurtz
R.L. Brown

JDS

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-30-89

COMPANY Asarco Lab #062989-5

Rock Chip Samples

Page 1

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
OC 10-S-0-5	.156		
" 10-S-5-10	.111	0.0923	
" 10-S-10-13	.010		
" 15-S-0-5	.008	0.008	ok?
" 20-S-0-5	.026	0.0285	
" 20-S-5-10	.031		
" 30-S-0-5	.006		
" 30-S-5-10	.030	0.02975	
" 30-S-10-15	.026		
" 30-S-15-20	.057		
" 40-S-0-5	.009		
" 40-S-5-10	.011	0.02625	
" 40-S-10-15	.031		
" 40-S-15-20	.030		
" 50-S-0-5	.104		
" 50-S-5-10	.012	0.04875	
" 50-S-10-15	.013		
" 50-S-15-20	.066		
" 60-S-0-5	.030		
" 60-S-5-10	.059	0.0410	
" 60-S-10-15	.032		
" 60-S-15-20	.043		
" 70-S-0-5	.005		
" 70-S-5-10	.016		
" 70-S-10-15	.078	0.0865	

copy ok
D. Crowell
assay sheets

Certified Assays When Signed And Dated
7-1-89 [illegible]
DATE SIGNATURE

[illegible] 5 1989
S.W. Exploration

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-30-89

COMPANY Asarco Lab #062989-6

Rock Chip Samples

Page 2

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
OC 70-S-15-20	.247		
" 75-S-0-5	~~.027~~	0.0270 ch sample	
" 80-S-0-5	.012		
" 80-S-5-10	.017	0.03125	
" 80-S-10-15	.081		
" 80-S-15-20	.015		
" 90-S-0-5	.014		
" 90-S-5-10	.038		
" 90-S-10-15	.146	0.0486	
" 90-S-15-20	.130		
" 90-S-20-23	.015		
" 100-S-0-5	.025		
" 100-S-5-10	.022	0.021	
" 100-S-10-15	.027		
" 100-S-15-20	.010		
" 105-S-0-5	~~.003~~	0.003 ch sample	
" 110-S-0-5	.068		
" 110-S-5-10	.206	0.079	
" 110-S-10-15	.072		
" 110-S-15-20	.046		
" 110-S-20-25	.003		
" 120-S-0-5	.088		
" 120-S-5-10	.186		

Certified Assays When Signed And Dated
6-30-89 [signature]
DATE SIGNATURE

ASARCO Incorporated
JUL 5 1989
SW Exploration

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB # 070189-7

OC- Rock Chip Sample

Page 4

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
120-S-10-15	.040		
120-S-15-20	.097	0.07557	
120-S-20-25	.064		
120-S-25-30	.034		
120-S-30-35	.020		
130-S-0-5	.086		
130-S-5-10	.028		
130-S-10-15	.081		
130-S-15-20	.178	0.079	
130-S-20-25	.075		
130-S-25-30	.079		
130-S-30-35	.026		
140-S-0-5	.019		
140-S-5-10	.014		
140-S-10-15	.056	0.0316	
140-S-15-20	.061		
140-S-20-25	.008		
150-S-0-5	.063		
150-S-5-10	.004		
150-S-10-15	.009	0.0228	
150-S-15-20	.008		
150-S-20-25	.030		
160-S-0-5	.028		
160-S-5-10	.041		
160-S-10-15	.062		

ASARCO Incorporated
JUL 5 1989

Certified Assays When Signed And Dated
7-4-89 [signature]
DATE SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB #070189-8

OC- Rock Chip Samples

PAGE 3

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
160-S-15-20	.019	0.03417	
160-S-20-25	.005		
160-S-25-29	.050		
170-S-0-5	.010		
170-S-5-10	.079		
170-S-10-15	.005		
170-S-15-20	.027	0.02383	
170-S-20-25	.012		
170-S-21-23	.022 ch sample	ch sample	
170-S-21-23	.022		
170-S-25-30	.010		
180-S-0-5	.056		
180-S-5-10	.002		
180-S-10-15	.007	0.0644	
180-S-15-20	.024		
180-S-20-25	.233		
180-S-21-23	.007 ch sample	ch sample	
190-S-0-5	.005		
190-S-5-10	.024	0.0113	
190-S-10-15	.005		
200-S-0-5	.007		
200-S-5-10	.011		
200-S-10-15	.016	0.0215	
~~200-S-15-20~~	.052		
200-S-31-33	.095 ch sample	ch sample	

ASARCO Incorporated
JUL 5 1989
SW Exploration

Certified Assays When Signed And Dated
7-4-89 DATE
SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3616

DATE 7-4-89

COMPANY ASARCO LAB #070189-9

OC- Rock Chip Samples

Page 5

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
210-S-0-5	.299		
210-S-5-10	.384		
210-S-10-15	.357	0.291	
210-S-15-20	.124		
220-S-0-5	.076		
220-S-5-10	.143	0.08464	
220-S-10-15	.035		
230-S-0-5	.004		
230-S-5-10	.042	0.022	
230-S-10-13	.020		
240-S-0-5	.019		
240-S-5-10	.023	0.0305	
240-S-10-15	.026		
240-S-15-19	.054		
290-S-0-5	.002		
290-S-5-10	.143	0.0533	
290-S-10-15	.015		
0-S-0-5	.015		
0-S-5-10	.028	0.0215	
250-S-0-5	.006		
250-S-5-10	.015		
250-S-10-15	.184	0.0789	
250-S-15-20	.110		
260-S-0-5	.022		
260-S-5-10	.114	0.048	

ASARCO Incorporated
JUL 5 1989
SW Exploration

Certified Assays When Signed And Dated
7-4-89
DATE SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB # 070289-10

OC-Rock Chip Samples

Page 6

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
270-S-0-5	.005		
270-S-5-10	. No Sample		
270-S-10-15	.064		
280-S-0-5	.006		
280-S-5-10	.027		
280-S-10-15	.066	0.03925	
280-S-15-18	.058		
10-N-1-3	~~.022~~	ch sample	
40-N-0-3	.063	0.043	
50-N-31-34	~~.010~~	ch sample	
60-N-0-5	.238	0.189	
60-N-5-8	.140		
70-N-0-5	.191	0.132	
70-N-5-8	.073		
80-N-0-5	.118	0.0845	
80-N-5-8	.051		
90-N-0-5	.147	0.1435	
90-N-5-8	.180		
100-N-12-14	~~.027~~	ch sample	
120-N-0-5	.289	0.289	
~~130-N-17-19~~	~~.010~~	ch	
140-N-0-5	.366	0.344	
150-N-0-6	.201	0.201	
~~160-N-0-5~~	~~.286~~	0.2355	
160-N-5-10	.185		

Certified Assays When Signed And Dated
7-4-89 [illegible]
DATE SIGNATURE

ASARCO Incorporated
JUL 5 1989
SW Exploration

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB #070289-11

OC- Rock Chip Samples

Page 7

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
170-N-0-5	.243		
170-N-5-10	.138	0.1966	
170-N-10-15	.209		
180-N-0-5	.022		
180-N-5-10	.007	0.1163	
180-N-10-15	.320		
210-N-0-6	.028		

Certified Assays When Signed And Dated

DATE SIGNATURE

ASARCO Incorporated
JUL 15 1989
SW Exploration

JDS

ASARCO

Southwestern Exploration Division

July 10, 1989

R.L. Brown/F.T. Graybeal
New York Office

Activity Progress Report - June
Yarnell Project
Yavapai County, Arizona

As per your request, I submit the June report for the Activity Progress at the Yarnell Project.

The attached chart shows the week blocked off if work was done in this area. Explanation for unfinished work and future work is highlighted below.

1. Drilling and Assaying

Drilling and assaying has been completed on 36 holes (total). Surveying of these 36 holes has been completed and a new map completed on the hole distribution has been released by the drafting department. The topography will be upgraded when the aerial photography is completed. Check assays on 65 samples are underway with Skyline Labs, Tucson.

A renewed drilling proposal has yet to be submitted.

2. Geologic mapping, et al, claim area

Only a few days have been devoted to this task by M.A. Miller. The lack of time for this task was a result of several factors: a) the time involvement with Norgold, Asarco SWMD and MBD, and b) the involvement with the drillers, samplers, cat operators, and other workers which should have been handled by the other staff members assigned to those tasks.

Mr. Miller will endeavor to manage his time and personnel so as to accommodate his primary tasks.

3. Surveying

The bulk of the surface surveying is complete. The lack of useable help was the main factor in not completing the task.

The work will be completed with the help of SPD and JJM while drilling is suspended.

The aerial survey points and panels have been established and the area was scheduled to be flown on July 7.

The base line water survey has yet to be started.

4. The SWMD has yet to submit a modified ROI on the first nine holes as requested. Time restraints on other work and the union deadline are the major factors. Verbal comments have been received concerning permitting, but no written note; but an extended time for permitting appears probable.

5. The local demography has not been made as the consultant declined to accept the job after mulling it over for two weeks. I will probably contract with a Wickenburg real estate group to secure the information.

6. Future

The immediate future is to place the drill coordinates and assays for the Computer Service group to work.

A comparative study of assays between holes has been requested by New York and will be undertaken.

The open-cut samples have been assayed and the points were surveyed July 8 and 9. A map and sections of the lines will be drafted and sent to SWMD and MBD for their agreement of where the metallurgical sample should be collected.

A review and recommendation report for the next phase of drilling to resolve extensions and rapid change between existing drill holes is pending, and when approved, the next 15-25 holes will be started toward the end of July.

James D. Sell

James D. Sell

JDS:mek
Attachments

cc: W.L. Kurtz
W.D. Gay
M.A. Miller

YARNELL PROJECT EA-0444

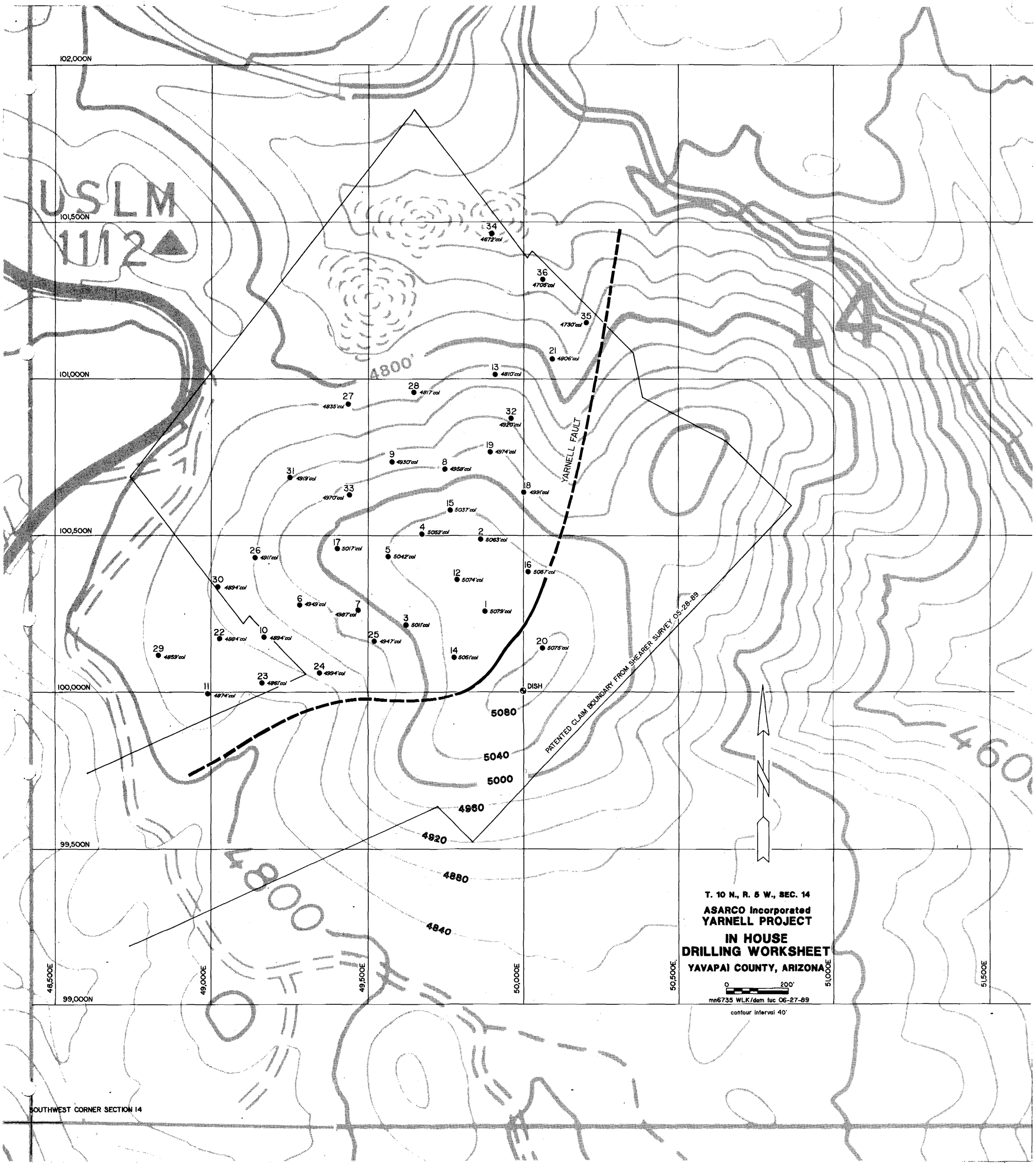
Yavapai County, Arizona

AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	1990 JAN.
Geol. Mapping/Alteration Studies - Claim Area	MAM	XXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Permits, Drilling, as needed	MAM		X						
Rotary Drilling, 25 holes, sites, logging	SPD-JJM-MAM		XXXX						
Drill Hole Location Survey	WDG		XXXX	X					
Claim Survey, Clean-up	WDG	X							
Re-Tuned ROI, Preliminary	SWMD	XXXX							
Base-Line Water Survey	WDG-MAM	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	
Open-cut Sampling, Metallurgical	JJM-MAM								
Aerial Survey Control Points	WDG								
Permits - Establish Guidelines/Time Table	SWMD	XX							
Mapping/Sampling - Outside Claims	MAM	X	XXXX						
Claim Staking Anomalous Areas	MAM-WDG	X	XXXX						
Local Demography (Yarnell/Glen Ilah)	JDS-Consultant	XX					XX		
Core Drilling, 4 holes, sites, logging, Metallurgy	SPD-JJM-MAM		XXXX						
Photography, Aerial	WDG-Contractor		X						
Blasting & Removal of Open-cut Metallurgical Sample	SWMD-Contractor		XX						
Topography Map, Mine Area/Photography Total Area	WDG-Contractor		XXX						
Underground Surveying	WDG-Contractor		X	XXX					
Underground Sampling	WDG-JJM		X	X					
Final Drilling/Geology/Ore Reserve Est. Report	MAM-JDS			XX					
Permits for Mining/Metallurgical Operations	SWMD			XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXXX
Column Leach Tests	MBD-McC		XX	XXXXX	XXXX				
Ore Reserve	SWMD-SWED			XXXX					
Water Supply Evaluation/Recommendations	MAM-WDG-SWMD				XXXX				
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXXX	XXXX	XXXXX
Metallurgical Reports/Recommendations	MBD-McC					XXXX			
Feasibility Report	SWMD					XXXX			
Removal of Microwave Towers	WDG-Contractor					XXXX			
Mine/Metallurgical Plant Planning/Development	SWMD-MBD					XXXX	XXXXX	XXXX	XXXXX

PERSONNEL:

JDS, James D. Sell
JJM, John J. Malusa, geologist, temporary
MAM, Mark A. Miller, project supervisor, geolgoist
MBD, Mineral Beneficiation Dept.
McC, McClelland Laboratories, Inc.
SPD, Steven P. Duncan, technician
SWED, Southwestern Exploration Division
SWMD, Southwestern Mining Department
WDG, William D. Gay, land engineer

J.D. Sell
6/30/89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4672'col
36
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35
4730'col
21
4806'col
13
4810'col
28
4817'col
27
4835'col
32
4920'col
19
4974'col
9
4930'col
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4958'col
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4984'col
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5075'col
29
4859'col
14
5061'col
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4994'col
23
4965'col
11
4974'col
DISH
YARNELL FAULT
PATENTED CLAIM BOUNDARY FROM SHEARER SURVEY 05-28-89
5080
5040
5000
4960
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4880
4840
T. 10 N., R. 5 W., SEC. 14
ASARCO Incorporated
YARNELL PROJECT
IN HOUSE
DRILLING WORKSHEET
YAVAPAI COUNTY, ARIZONA
0
200'
mn6735 WLK/dam fuc 06-27-89
contour interval 40'
SOUTHWEST CORNER SECTION 14

FILE
JDS

ASARCO

Mineral Beneficiation Department

July 11, 1989

Mr. J. D. Sell, Manager
Southwestern US Division
Exploration Department
TUCSON OFFICE

Yarnell Project
Column Leach Tests

I have read the article regarding large vs. small column leach tests which you forwarded with your file note of June 30, 1989.

This is interesting information and certainly indicates that, at least under some conditions, small diameter columns (6 to 9 in) can give results comparable to larger diameter columns (48 in) over a long period of time. However, these results were obtained with very responsive ores with good leaching characteristics and minimal percolation problems -- note the recoveries of 80-90% in 30 days at 1.5-in particle size.

We should definitely proceed with the program previously proposed for Yarnell to define the overall leaching characteristics of this ore. Follow-up tests on specific areas might, however, be accomplished in smaller columns once we understand the leaching characteristics of this ore better and, if we must crush to a fine size.

D. E. Crowell

DEC:brw

cc: R. J. Kupsch
F. T. Graybeal
W. L. Kurtz
D. F. Skidmore w/copy of article
File - Misc. 36

ASARCO Incorporated
JUL 11 1989
SW Exploration

YAROPCUT

ASARCO Incorporated

JUL 11 1989

SW Exploration

YARNELL PROJECT SURVEY OF OPEN-CUT

1/4

LOCATION POINTS-SEE MAP

COORDINATES

No.	NORTH	EAST	ELEVATION
1	100,169.6	50,031.6	5,106.8
2	100,199.4	50,038.4	5,100.7
3	100,238.4	50,050.5	5,094.3
4	100,267.4	50,060.8	5,084.7
5	100,305.0	50,072.5	5,074.0
6	100,327.4	50,045.8	5,069.2
7	100,383.4	50,001.2	5,056.9
8	100,305.4	50,079.7	5,058.7
9	100,258.9	50,084.4	5,066.7
10	100,308.9	50,144.0	5,063.6
11	100,265.8	50,134.6	5,066.6
12	100,202.6	50,191.7	5,070.7
13	100,191.2	50,196.9	5,070.3
14	100,187.7	50,160.7	5,089.9
15	100,175.9	50,120.7	5,089.7
16	100,122.1	50,101.6	5,095.8
17	100,102.3	50,073.5	5,102.6
18	100,075.4	50,035.4	5,109.0
19	100,051.6	50,006.8	5,112.3
20	100,119.1	49,985.2	5,110.1
21	100,085.6	49,977.1	5,110.2
22	100,055.8	49,953.3	5,107.0
23	100,030.5	49,930.6	5,099.8
24	100,028.5	49,992.5	5,113.1
25	99,998.8	49,936.9	5,099.6

SAMPLE LOCATIONS - SEE MAP

E = SOUTHEAST SIDE, W = NORTHWEST SIDE

No.	COORDINATES NORTH	EAST	ELEVATION	
0E	100,002.3	49,947.9	5,099.2	
10E	100,011.4	49,956.5	5,097.5	
20E	100,017.7	49,964.1	5,095.8	
30E	100,026.4	49,969.5	5,093.1	
40E	100,029.6	49,976.8	5,091.7	
50E	100,036.0	49,987.5	5,090.7	
60E	100,046.4	49,993.9	5,090.6	
70E	100,055.7	49,999.3	5,091.8	
80E	100,064.4	50,000.2	5,091.3	
90E	100,072.8	50,006.3	5,089.8	
100E	100,080.6	50,012.1	5,087.0	
110E	100,087.2	50,019.7	5,083.9	
120E	100,093.7	50,027.6	5,079.6	
130E	100,098.4	50,039.3	5,078.2	
140E	100,101.5	50,049.7	5,078.1	
150E	100,108.7	50,056.1	5,077.5	
160E	100,117.5	50,060.1	5,075.7	
170E	100,128.1	50,066.2	5,074.3	
180E	100,131.9	50,078.2	5,081.3	5' ABOVE TOE
190E	100,134.5	50,089.7	5,078.2	4 ABOVE TOE
200E	100,146.2	50,089.2	5,074.0	
210E	100,157.6	50,093.1	5,072.4	
220E	100,166.7	50,099.4	5,072.3	
230E	100,175.4	50,106.0	5,072.8	
240E	100,184.9	50,109.7	5,071.0	
250E	100,191.9	50,116.0	5,071.0	

3/4

NO.	COORDINATES NORTH	EAST	ELEVATION
260E	100,196.8	50,122.5	5,070.9
270E	100,204.3	50,133.5	5,070.8
280E	100,211.3	50,140.0	5,069.9
290E	100,203.8	50,165.1	5,071.9
40W	100,053.3	49,958.5	5,089.2
60W	100,064.1	49,974.8	5,090.9
70W	100,071.8	49,983.0	5,091.0
80W	100,079.9	49,987.2	5,089.9
90W	100,091.6	49,990.2	5,088.1
*100W	100,101.8	49,994.5	5,087.7
*110W	100,106.2	50,000.6	5,086.2
120W	100,112.5	50,006.3	5,084.3
*130W	100,118.8	50,013.2	5,083.3
140W	100,121.9	50,028.0	5,079.1
150W	100,129.8	50,034.5	5,077.7
160W	100,134.6	50,039.2	5,076.9
170W	100,145.0	50,046.3	5,075.1
180W	100,154.8	50,050.4	5,074.7
190W	100,166.5	50,051.0	5,074.0
200W	100,181.6	50,045.6	5,077.3
210W	100,189.3	50,048.3	5,076.1
*220W	100,199.8	50,050.5	5,076.2
*230W	100,208.7	50,055.4	5,074.8
*240W	100,215.4	50,058.2	5,074.1
*250W	100,227.0	50,062.0	5,071.8
*260W	100,237.0	50,064.9	5,069.2

COORDINATES

No.	NORTH	EAST	ELEVATION
* 270W	100,244.3	50,072.4	5,069.4
* 280W	100,250.3	50,080.5	5,067.1
* 290W	100,258.9	50,084.5	5,066.7

* NO SAMPLES TAKEN

YARNELL PROJECT
SURVEY OF OPEN-CUT

COORDINATES

NUMBER	NORTH	EAST	ELEVATION
1	100,169.6	50,031.6	5,106.8
2	100,199.4	50,038.4	5,100.7
3	100,238.4	50,050.5	5,094.3
4	100,267.4	50,060.8	5,084.7
5	100,305.0	50,072.5	5,074.0
6	100,327.4	50,045.8	5,069.2
7	100,383.4	50,001.2	5,056.9
8	100,305.4	50,079.7	5,058.7
9	100,258.9	50,084.4	5,066.7
10	100,308.9	50,144.0	5,063.6
11	100,265.8	50,134.6	5,066.6
12	100,202.6	50,191.7	5,070.7
13	100,191.2	50,196.9	5,070.3
14	100,187.7	50,160.7	5,089.9
15	100,175.9	50,120.7	5,089.7
16	100,122.1	50,101.6	5,095.8
17	100,102.3	50,073.5	5,102.6
18	100,075.4	50,035.4	5,109.0
19	100,051.6	50,006.8	5,112.3
20	100,119.1	49,985.2	5,110.1
21	100,085.6	49,977.1	5,110.2
22	100,055.8	49,953.3	5,107.0
23	100,030.5	49,930.6	5,099.8
24	100,028.5	49,992.5	5,113.1
25	99,998.8	49,936.9	5,099.6
0E	100,002.3	49,947.9	5,099.2
10E	100,011.4	49,956.5	5,097.5
20E	100,017.7	49,964.1	5,095.8
30E	100,026.4	49,969.5	5,093.1
40E	100,029.6	49,976.8	5,091.7
50E	100,036.0	49,987.5	5,090.7
60E	100,046.4	49,993.9	5,090.6
70E	100,055.7	49,999.3	5,091.8
80E	100,064.4	50,000.2	5,091.3
90E	100,072.8	50,006.3	5,089.8
100E	100,080.6	50,012.1	5,087.0
110E	100,087.2	50,019.7	5,083.9
120E	100,093.7	50,027.6	5,079.6
130E	100,098.4	50,039.3	5,078.2
140E	100,101.5	50,049.7	5,078.1
150E	100,108.7	50,056.1	5,077.5
160E	100,117.5	50,060.1	5,075.7
170E	100,128.1	50,066.2	5,074.3
180E	100,131.9	50,078.2	5,081.3
190E	100,134.5	50,089.7	5,078.2
200E	100,146.2	50,089.2	5,074.0

210E	100,157.6	50,093.1	5,072.5
220E	100,166.7	50,099.4	5,072.3
230E	100,175.4	50,106.0	5,072.8
240E	100,184.9	50,109.7	5,071.0
250E	100,191.9	50,116.0	5,071.0
260E	100,196.8	50,122.5	5,070.9
270E	100,204.3	50,133.5	5,070.8
280E	100,211.3	50,140.0	5,069.9
290E	100,203.8	50,165.1	5,071.9
40W	100,053.3	49,958.5	5,089.2
60W	100,064.1	49,974.8	5,090.9
70W	100,071.8	49,983.0	5,091.0
80W	100,079.9	49,987.2	5,089.9
90W	100,091.6	49,990.2	5,088.1
*100W	100,101.8	49,994.5	5,087.7
*110W	100,106.2	50,000.6	5,086.2
120W	100,112.5	50,006.3	5,084.3
*130W	100,118.8	50,013.2	5,083.3
140W	100,121.9	50,028.0	5,079.1
150W	100,129.8	50,034.5	5,077.7
160W	100,134.6	50,039.2	5,076.9
170W	100,145.0	50,046.3	5,075.1
180W	100,154.8	50,050.4	5,074.7
190W	100,166.5	50,051.0	5,074.0
200W	100,181.6	50,045.6	5,077.3
210W	100,189.3	50,048.3	5,076.1
*220W	100,199.8	50,050.5	5,076.2
*230W	100,208.7	50,055.4	5,074.8
*240W	100,215.4	50,058.2	5,074.1
*250W	100,227.0	50,062.0	5,071.8
*260W	100,237.0	50,064.9	5,069.2
*270W	100,244.3	50,072.4	5,069.4
*280W	100,250.3	50,080.5	5,067.1
*290W	100,258.9	50,084.5	5,066.7

*No samples taken.

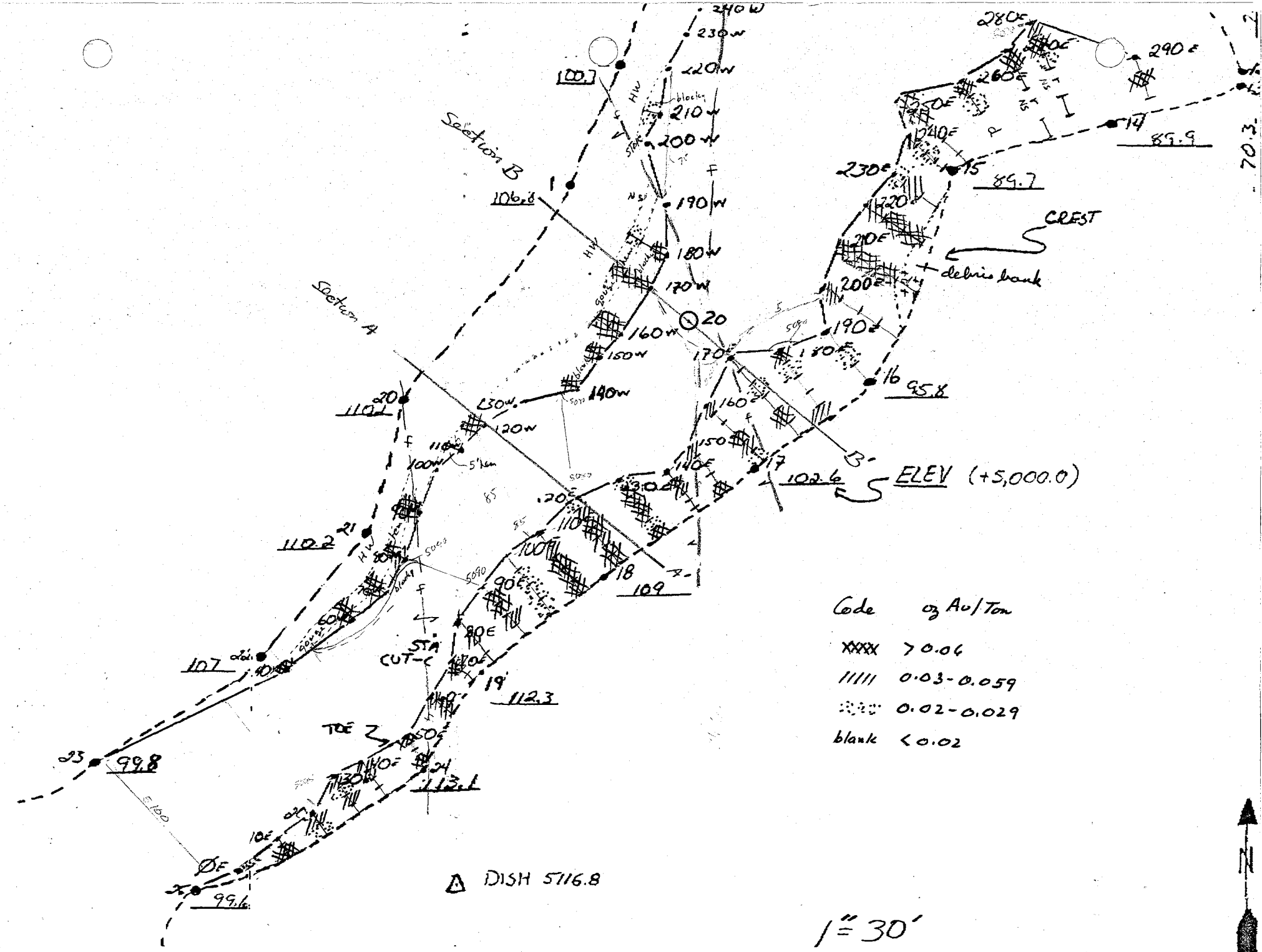
YARNELL PROJECT
SURVEY OF OPEN-CUT

COORDINATES

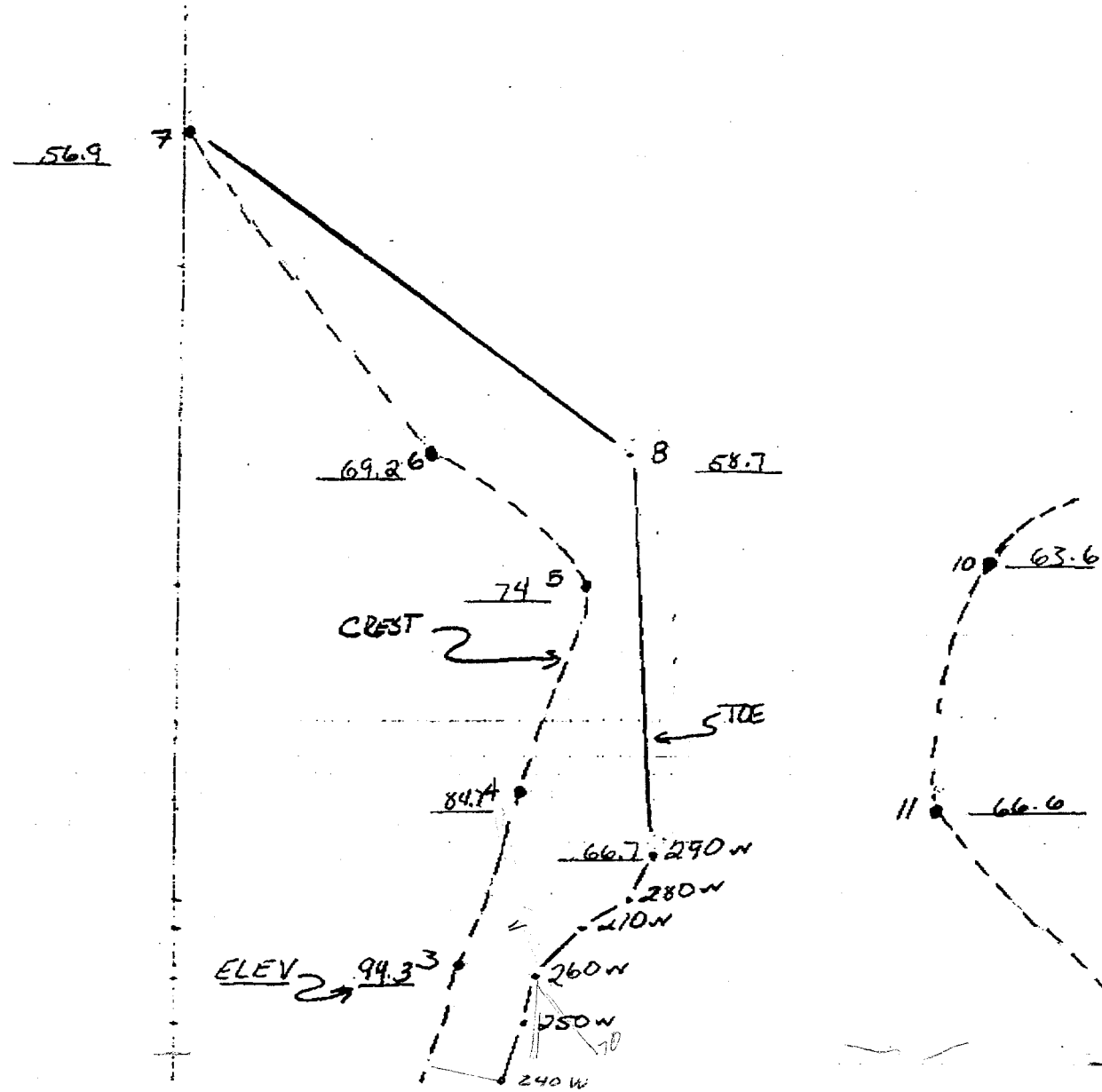
NUMBER	NORTH	EAST	ELEVATION
1	100,169.6	50,031.6	5,106.8
2	100,199.4	50,038.4	5,100.7
3	100,238.4	50,050.5	5,094.3
4	100,267.4	50,060.8	5,084.7
5	100,305.0	50,072.5	5,074.0
6	100,327.4	50,045.8	5,069.2
7	100,383.4	50,001.2	5,056.9
8	100,305.4	50,079.7	5,058.7
9	100,258.9	50,084.4	5,066.7
10	100,308.9	50,144.0	5,063.6
11	100,265.8	50,134.6	5,066.6
12	100,202.6	50,191.7	5,070.7
13	100,191.2	50,196.9	5,070.3
14	100,187.7	50,160.7	5,089.9
15	100,175.9	50,120.7	5,089.7
16	100,122.1	50,101.6	5,095.8
17	100,102.3	50,073.5	5,102.6
18	100,075.4	50,035.4	5,109.0
19	100,051.6	50,006.8	5,112.3
20	100,119.1	49,985.2	5,110.1
21	100,085.6	49,977.1	5,110.2
22	100,055.8	49,953.3	5,107.0
23	100,030.5	49,930.6	5,099.8
24	100,028.5	49,992.5	5,113.1
25	99,998.8	49,936.9	5,099.6
0E	100,002.3	49,947.9	5,099.2
10E	100,011.4	49,956.5	5,097.5
20E	100,017.7	49,964.1	5,095.8
30E	100,026.4	49,969.5	5,093.1
40E	100,029.6	49,976.8	5,091.7
50E	100,036.0	49,987.5	5,090.7
60E	100,046.4	49,993.9	5,090.6
70E	100,055.7	49,999.3	5,091.8
80E	100,064.4	50,000.2	5,091.3
90E	100,072.8	50,006.3	5,089.8
100E	100,080.6	50,012.1	5,087.0
110E	100,087.2	50,019.7	5,083.9
120E	100,093.7	50,027.6	5,079.6
130E	100,098.4	50,039.3	5,078.2
140E	100,101.5	50,049.7	5,078.1
150E	100,108.7	50,056.1	5,077.5
160E	100,117.5	50,060.1	5,075.7
170E	100,128.1	50,066.2	5,074.3
180E	100,131.9	50,078.2	5,081.3
190E	100,134.5	50,089.7	5,078.2
200E	100,146.2	50,089.2	5,074.0

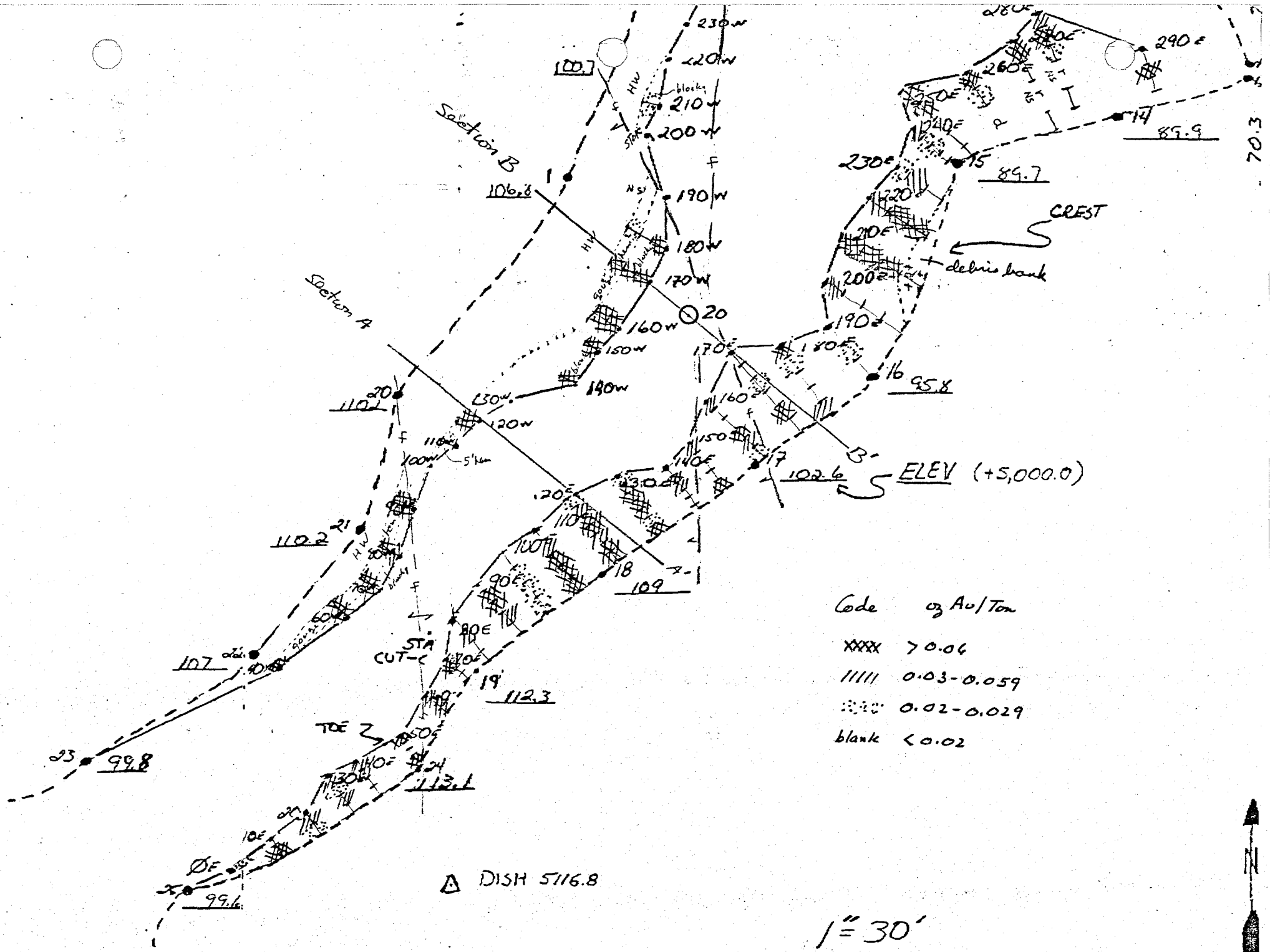
210E	100,157.6	50,093.1	5,072.5
220E	100,166.7	50,099.4	5,072.3
230E	100,175.4	50,106.0	5,072.8
240E	100,184.9	50,109.7	5,071.0
250E	100,191.9	50,116.0	5,071.0
260E	100,196.8	50,122.5	5,070.9
270E	100,204.3	50,133.5	5,070.8
280E	100,211.3	50,140.0	5,069.9
290E	100,203.8	50,165.1	5,071.9
40W	100,053.3	49,958.5	5,089.2
60W	100,064.1	49,974.8	5,090.9
70W	100,071.8	49,983.0	5,091.0
80W	100,079.9	49,987.2	5,089.9
90W	100,091.6	49,990.2	5,088.1
*100W	100,101.8	49,994.5	5,087.7
*110W	100,106.2	50,000.6	5,086.2
120W	100,112.5	50,006.3	5,084.3
*130W	100,118.8	50,013.2	5,083.3
140W	100,121.9	50,028.0	5,079.1
150W	100,129.8	50,034.5	5,077.7
160W	100,134.6	50,039.2	5,076.9
170W	100,145.0	50,046.3	5,075.1
180W	100,154.8	50,050.4	5,074.7
190W	100,166.5	50,051.0	5,074.0
200W	100,181.6	50,045.6	5,077.3
210W	100,189.3	50,048.3	5,076.1
*220W	100,199.8	50,050.5	5,076.2
*230W	100,208.7	50,055.4	5,074.8
*240W	100,215.4	50,058.2	5,074.1
*250W	100,227.0	50,062.0	5,071.8
*260W	100,237.0	50,064.9	5,069.2
*270W	100,244.3	50,072.4	5,069.4
*280W	100,250.3	50,080.5	5,067.1
*290W	100,258.9	50,084.5	5,066.7

*No samples taken.


Section B
Section A
CREST
debris bank
ELEV (+5,000.0)
STA CUT-C
TOE
DISH 5116.8
Code oz Au/Ton
XXXX > 0.06
IIIII 0.03-0.059
0.02-0.029
blank < 0.02
1" = 30'
SD 7/10/89

YARNELL PROJECT
OPEN CUT




Section B
Section A
CREST
debris bank
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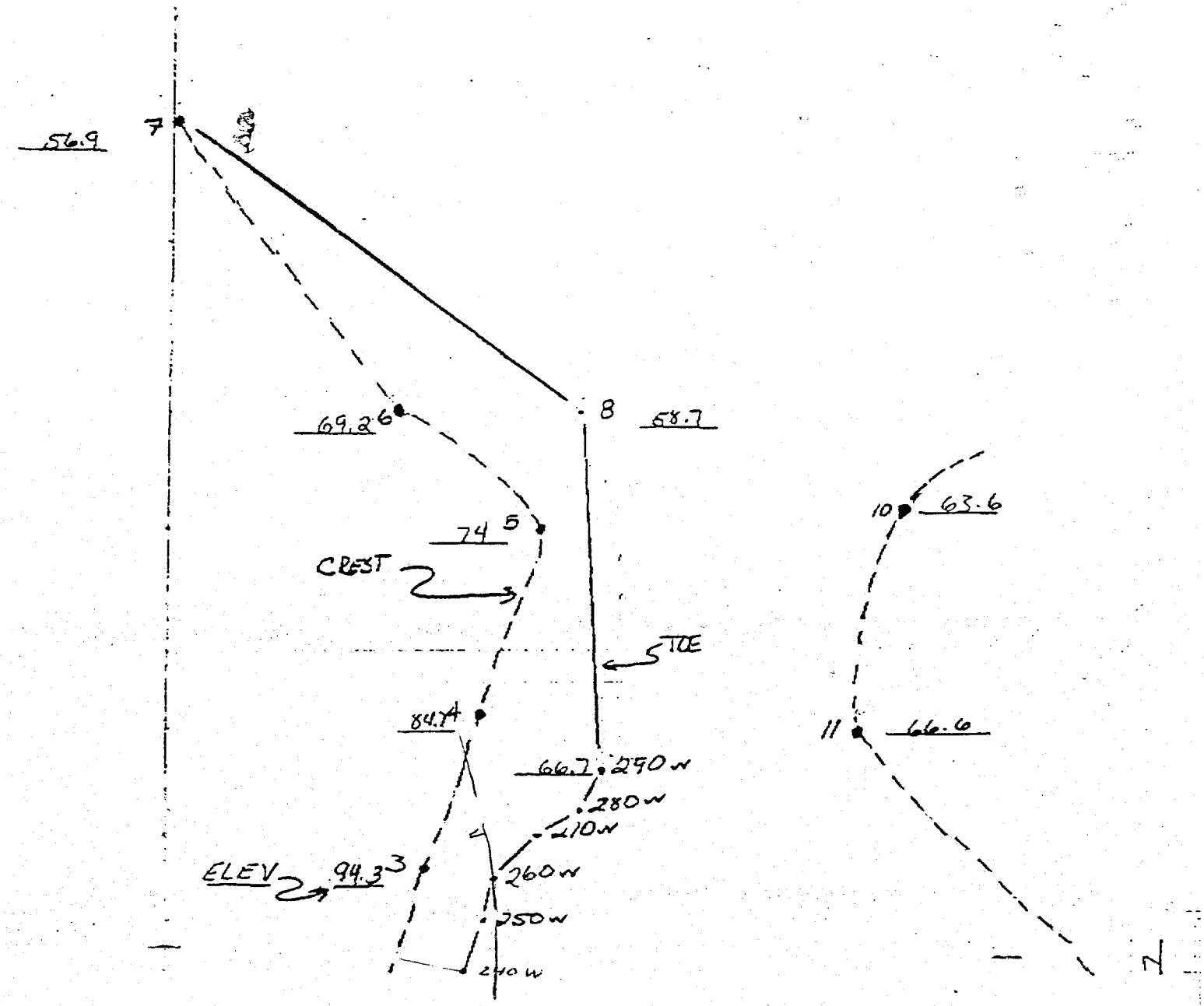
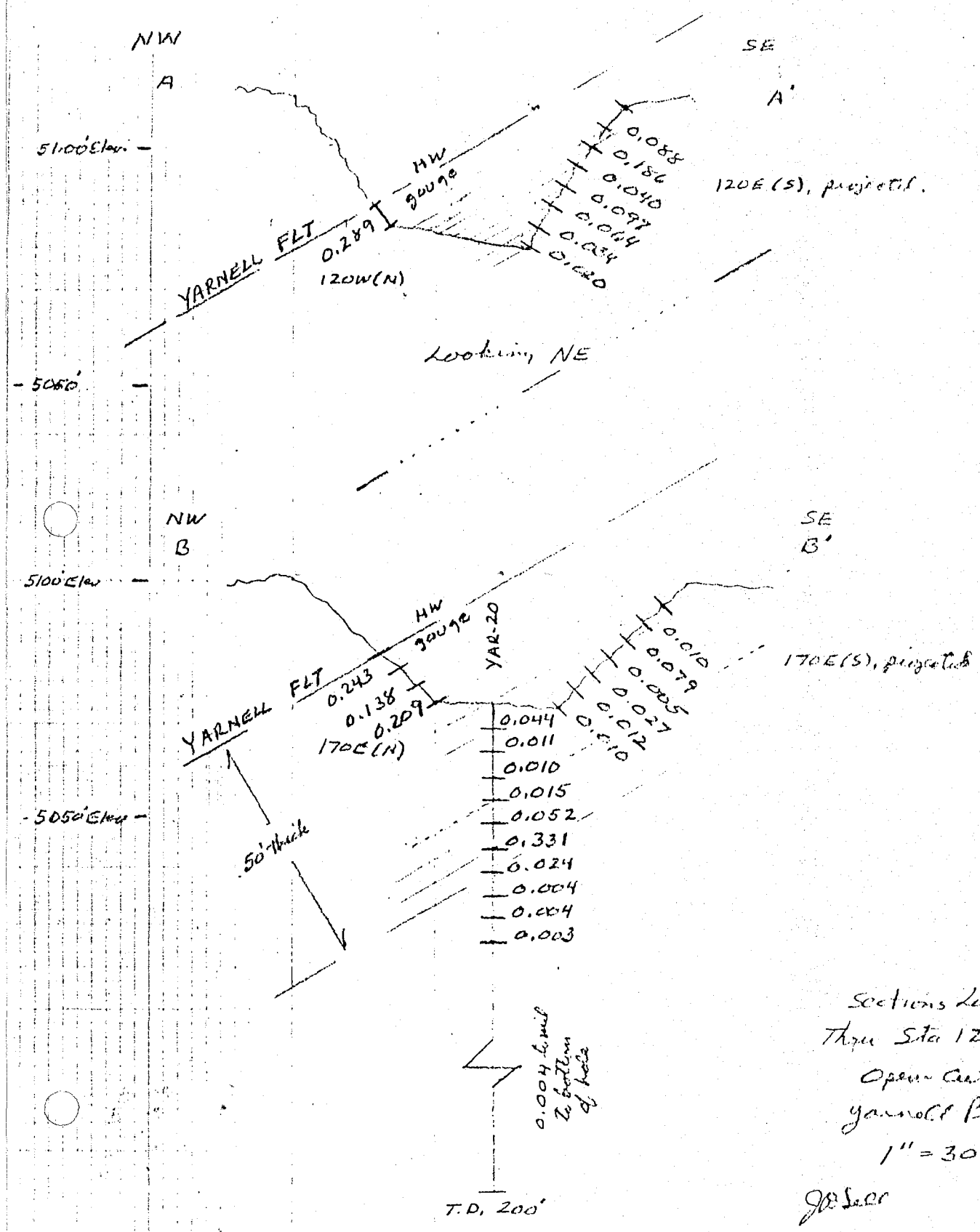
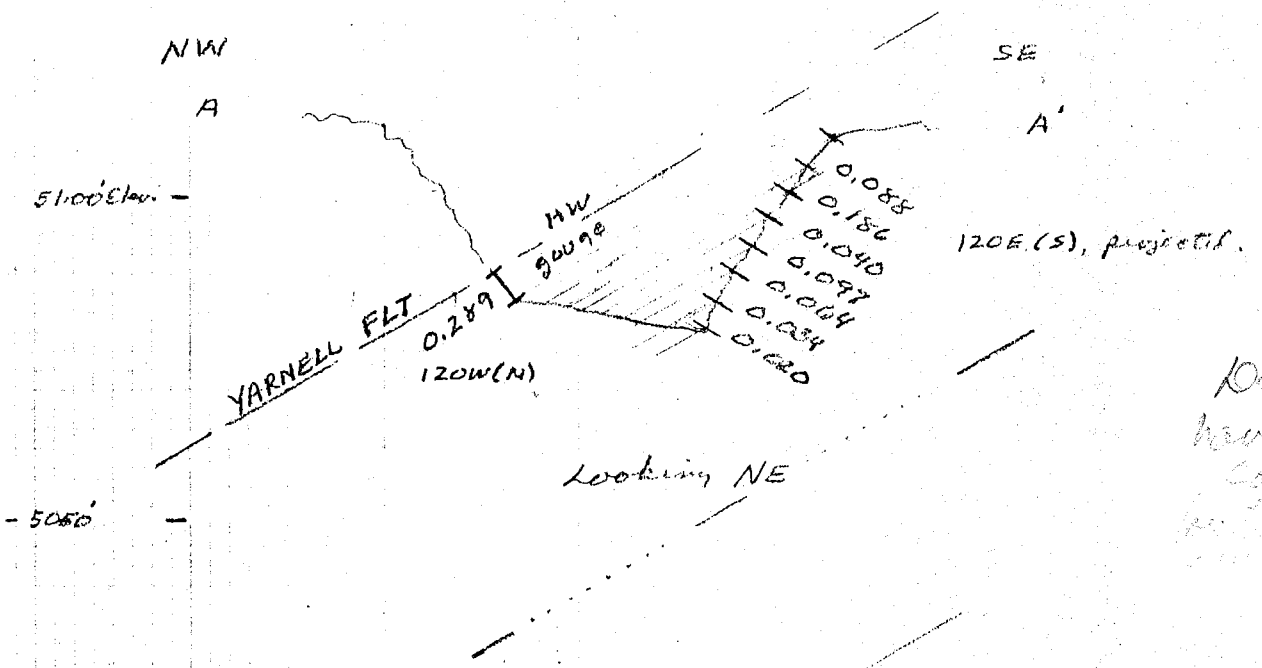
YARNELL PROJECT
OPEN CUT

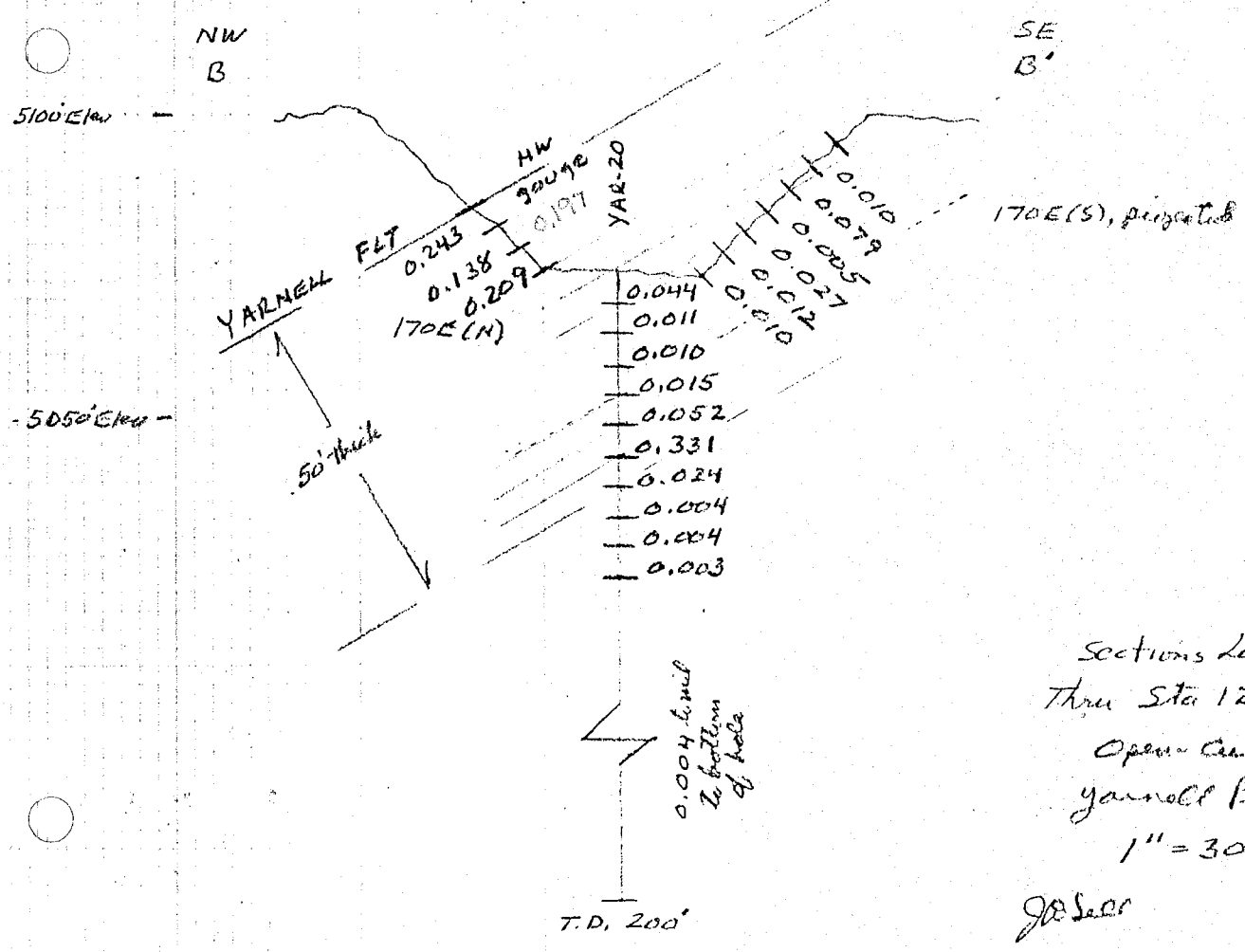




Sections Looking NE
Thru Sta 120 & Sta 170
Open Cut
Yarnell Project
1" = 30'

JB Lear 7/13/89

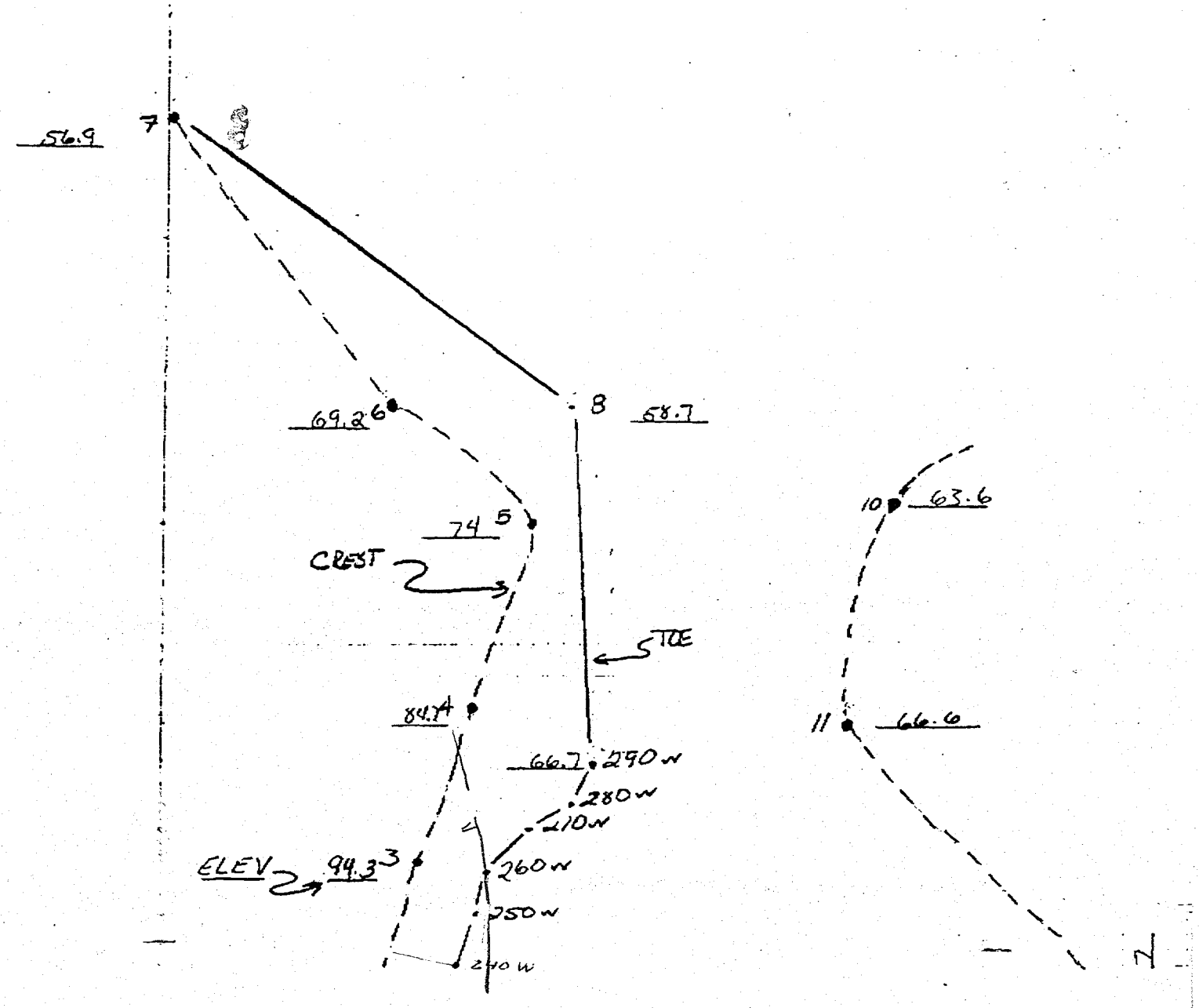




Sections Looking NE
Thru Sta 120 & Sta 170
Open-Cut
Yarnell Project
1" = 30'

JA Sell 7/13/89

YARNELL PROJECT
OPEN CUT



W L Kurtz

JDS

FROM: W. L. KURTZ 7/11

TO: JDSell

Any advantage to us to drill Yarnell on hourly rate?

I have asked MA Miller to review the present contracts and the elapsed time on the various phases of drilling & compare footage with hourly. I have also asked Drilling Services to review their data & costs and be prepared to offer ASARCO another bid on footage & hourly rates on future work.

JDSell

cc: Yarnell File
MA Miller

JDS - yes I got those from Miller at completion of hole name
However - Be good to put all 1-36 in one memo for ease of use.

ASARCO

Southwestern Exploration Division

July 11, 1989

W. L. Kurtz

Holes Encountering Stopes/Muck
YM-10-36

Per your request I have tabulated drill holes that encountered stopes. As there are only three holes, I have tabulated them in narrative fashion.

YM-12 Encountered open stope 183-190. Switched to TriCone at 183' 190-195 No Sample. Return possible? Broken muck. 195-200 Small Sample return. 200-205 Back to full circulation.

YM-16 Encountered broken and fractured ground at 55'. Possible filled stope. Switched to TriCone at 60'. 65-70' No Return; 70-80 (2 samples) very small return. 80-85 No Return. 85-90 Back to full circulation.

Attempts were made from 60-85' to restore circulation by muds, foam, etc. All attempts failed. The interval from 55-85' corresponds with the stope outline on the map. This area was visited under ground and was badly caved and inaccessible.

YM-24 Encountered stope 65-75' No Return. Good Return 75-85' and remainder of drill hole.

how about holes 1 → 7 : 4 holes hit stope — need report on them - urgent!! 7/13 JDS

MAM:mek

Mark A. Miller

cc: J. D. Sell

JDS

ASARCO

Southwestern Exploration Division

July 11, 1989

W.L. Kurtz

Holes Encountering Stopes/Muck
YM-10-36

Per your request I have tabulated drill holes that encountered stopes. As there are only three holes, I have tabulated them in narrative fashion.

YM-12 Encountered open stope 183-190. Switched to TriCone at 183'
190-195 No Sample. Return possible? Broken muck.
195-200 Small Sample return. 200-205 Back to full circulation.

YM-16 Encountered broken and fractured ground at 55'. Possible filled stope. Switched to TriCone at 60'. 65-70' No Return; 70-80 (2 samples) very small return. 80-85 No Return. 85-90 Back to full circulation.

Attempts were made from 60-85' to restore circulation by muds, foam, etc. All attempts failed. The interval from 55-85' corresponds with the stope outline on the map. This area was visited under ground and was badly caved and inaccessible.

YM-24 Encountered stope 65-75' No Return. Good Return 75-85' and remainder of drill hole.

how about holes 1 → 9, 4 holes hit stope — need report on them requested
7/13 JDSell

MAM:mek

Mark A. Miller

cc: J.D. Sell

YARNELL PROJECT EA-0444

Yavapai County, Arizona

AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	1990 JAN.
Geol. Mapping/Alteration Studies - Claim Area	MAM	XXXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Permits, Drilling, as needed	MAM	XXXX	X						
Rotary Drilling, 25 holes, sites, logging	SPD-JJM-MAM	XXXX	XXXX						
Drill Hole Location Survey	WDG	XXXX	XXXX	X					
Claim Survey, Clean-up	WDG	XXX							
Re-Tuned ROI, Preliminary	SWMD	XXXX							
Base-Line Water Survey	WDG-MAM	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	
Open-cut Sampling, Metallurgical	JJM-MAM	XX							
Aerial Survey Control Points	WDG	XX							
Permits - Establish Guidelines/Time Table	SWMD	XX							
Mapping/Sampling - Outside Claims	MAM	X	XXXX						
Claim Staking Anomalous Areas	MAM-WDG	X	XXXX						
Local Demography (Yarnell/Glen Ilah)	JDS-Consultant	XX					XX		
Core Drilling, 4 holes, sites, logging, Metallurgy	SPD-JJM-MAM		XXXX						
Photography, Aerial	WDG-Contractor		X						
Blasting & Removal of Open-cut Metallurgical Sample	SWMD-Contractor		XX						
Topography Map, Mine Area/Photography Total Area	WDG-Contractor		XXX						
Underground Surveying	WDG-Contractor		X	XXX					
Underground Sampling	WDG-JJM		X	X					
Final Drilling/Geology/Ore Reserve Est. Report	MAM-JDS			XX					
Permits for Mining/Metallurgical Operations	SWMD			XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXXX
Column Leach Tests	MBD-McC		XX	XXXXX	XXXX				
Ore Reserve	SWMD-SWED			XXXX					
Water Supply Evaluation/Recommendations	MAM-WDG-SWMD				XXXX				
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXXX	XXXX	XXXXX
Metallurgical Reports/Recommendations	MBD-McC					XXXX			
Feasibility Report	SWMD					XXXX			
Removal of Microwave Towers	WDG-Contractor					XXXX			
Mine/Metallurgical Plant Planning/Development	SWMD-MBD					XXXX	XXXXX	XXXX	XXXXX

PERSONNEL:

JDS, James D. Sell
JJM, John J. Malusa, geologist, temporary
MAM, Mark A. Miller, project supervisor, geolgoist
MBD, Mineral Beneficiation Dept.
McC, McClelland Laboratories, Inc.
SPD, Steven P. Duncan, technician
SWED, Southwestern Exploration Division
SWMD, Southwestern Mining Department
WDG, William D. Gay, land engineer

~~SPD~~ changed to SGK, Stephen G. Kechner in Acty Report

J.D. Sell 6/15/89

FROM: W. L. KURTZ

7/12

TO: JDSell

If you plot the open-cut by Gray's Coordinates then I have placed the outcrop of Yarnell Fault incorrectly on all the maps I have produced.

Don should get it right on maps AFTER you get it right or have Miller/Gray get it right.

Does Gray have coordinates Santa Fe? GET

yes, he says.

← recheck

June 30.

Expenditures to date yarnell

request for work 7/12

May 2

May 11

1) Not include Shearer billing

~~2) Not needed~~

2) No accounting on extra claims. distinct commission et for account

dig better out work

3) no land payment to Mongold

4) no land payment to Roman

5) No ~~[illegible]~~

Yarnell (70,727) in debt
June 1989 accounting

Yarnell File

JDS

7/12

FROM: W. L. KURTZ

TO: JDSell

Brown wants you to Federal Express a copy of "whatever" Lou Sanson produces — That is raw copy as you receive it (not your editing)

JDS

ASARCO

Exploration Department
Western USA

July 13, 1989

J.D. Sell
Tucson Office

Yarnell Project

In talking with Moat today he said they want to do some recon within the project area and I told him they were welcomed to do so, but it would be for their own account since we plan on doing it ourselves.

I told him that Asarco would contact the Alvarado Mine owners (~~Safire~~ Sabine Oil?). You can get name and status from Jerry Haggard.

Bryan Edgar will send a copy of the Heinztelman and Layton agreement to Asarco. Upon receipt you should reimburse Norgold for the front money payments.

WLK:mek

W. L. Kurtz

YARNELL PROJ
PROGRESS REPORT

To: J.D.S.

7-6-89

1. Approx 50% complete. Additional work required 3 weeks

2. Not started - lack of available time.

3. Complete - unless new areas are identified

W. H. Gay

ASARCO Incorporated
JUL 6 1989
SW Exploration

YARNELL PROJECT EA-0444

Yavapai County, Arizona

AREA OF ACTIVITY	PERSONNEL	1989 JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	1990 JAN.
Geol. Mapping/Alteration Studies - Claim Area	MAM	XXXX							
Sampling for discovery - Claim Area	MAM	XXXX	X						
Permits, Drilling, as needed	MAM	XXXX	X						
Rotary Drilling, 25 holes, sites, logging	SPD-JJM-MAM	XXXX	XXXX						
Drill Hole Location Survey	WDG	~~XXXX~~	XXXX	X					
Claim Survey, Clean-up	WDG	~~XXX~~ (1)							
Re-Tuned ROI, Preliminary	SWMD	XXXX							
Base-Line Water Survey	WDG-MAM	(2) XXXX	XXXX	XXXXX	XXXX	XXXX	XXXXX	XXXX	
Open-cut Sampling, Metallurgical	JJM-MAM	XX							
Aerial Survey Control Points	WDG	~~XX~~							
Permits - Establish Guidelines/Time Table	SWMD	XX							
Mapping/Sampling - Outside Claims	MAM	X	XXXX						
Claim Staking Anomalous Areas	MAM-WDG	(3) ~~X~~	XXXX						
Local Demography (Yarnell/Glen Ilah)	JDS-Consultant	XX					XX		
Core Drilling, 4 holes, sites, logging, Metallurgy	SPD-JJM-MAM		XXXX						
Photography, Aerial	WDG-Contractor		X						
Blasting & Removal of Open-cut Metallurgical Sample	SWMD-Contractor		XX						
Topography Map, Mine Area/Photography Total Area	WDG-Contractor		XXX						
Underground Surveying	WDG-Contractor		X	XXX					
Underground Sampling	WDG-JJM		X	X					
Final Drilling/Geology/Ore Reserve Est. Report	MAM-JDS			XX					
Permits for Mining/Metallurgical Operations	SWMD			XXXXX	XXXX	XXXX	XXXXX	XXXX	XXXXX
Column Leach Tests	MBD-McC		XX	XXXXX	XXXX				
Ore Reserve	SWMD-SWED			XXXX					
Water Supply Evaluation/Recommendations	MAM-WDG-SWMD				XXXX				
Development/Condemnation Drilling	MAM-SWMD					XXXX	XXXXX	XXXX	XXXXX
Metallurgical Reports/Recommendations	MBD-McC					XXXX			
Feasibility Report	SWMD					XXXX			
Removal of Microwave Towers	WDG-Contractor					XXXX			
Mine/Metallurgical Plant Planning/Development	SWMD-MBD					XXXX	XXXXX	XXXX	XXXXX

ASARCO Incorp.
JUL 6 1989
SW Exploration

7/13/89

FROM: W. L. KURTZ

YARNELL PROJECT

TO: LEO SMITH
6985 N. Oracle

Here are the topo maps — 1969; an Asarco-Newgold Land Status; and a BLM surface-mineral management map.

As stated on phone we are interested in determining the local gov. jurisdiction for Yarnell and Glen Ilah. Also the asking price of the property that has a "for Sale" sign located just west of USLM 1112 (monument in sec. 14; "for Sale" sec 15).

Mr. James Sell runs the Southwest Exploration Office and you can get any additional info from him.

cc. JDSell note only

ASARCO

Exploration Department
Western USA

W. L. Kurtz
Manager

July 13, 1989

Mr. Christopher Moat, President
NORGOLD RESOURCES INC.
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

Yarnell Project

Dear Mr. Moat:

Enclosed are the assay results for drill holes YM-10 thru YM-36 and a drill hole location map.

As discussed with you today, we would like to keep this data confidential until the Santa Fe patented land has been acquired. No press releases should be made without the approval of Mr. Brown.

Drill collar elevations have been surveyed. A new topographic map is being made.

Sincerely yours,

W. L. Kurtz

W. L. Kurtz

WLK:mek
encs.

cc: R.L. Brown (w/o encs.)
J.D. Sell (w/o encs.)

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

JDS

ASARCO

Southwestern Exploration Division

July 13, 1989

J.D. Sell

Yarnell Project
Assay Checks
Triad vs. Skyline

Per your request 75 prepared pulp samples were sent to Skyline Labs for comparison and check of Triad Minerals assay results. The attached listing shows the Triad Minerals results and the Skyline checks.

Samples were sent for Holes 10-32, and were taken from low grade to high grade within each drill hole. 3-4 Samples were picked per hole. Skyline Labs noted a problem in the mesh size of the pulp that being the pulp was not always ground to -200 mesh. Skyline rechecked the size fraction noting the +200, +80 size and the +80 size, reground the pulp to -200 mesh and then fire assayed it.

The Triad Minerals vs. Skyline results are within 10% of each other for the greatest majority of the samples with a notable exception at YM-30 230-235. This sample represents the Y.F.Z. (Yarnell Fault Zone) and may be showing a nugget effect.

The grindability problem with Triad (now remedied) does not appear to influence the assay to a significant degree.

Based upon the comparison between the two labs, it appears that Triad Minerals is reporting accurate results.

Mark A. Miller

MAM:mek
att.

cc: R.L. Brown
W.L. Kurtz
S.A. Anzalone
D.F. Skidmore

YARNELL PROJECT

ASSAY CHECKS

SAMPLE	INTERVAL	TRIAD	SKYLINE
YM-10	165-170	.036	.040
YM-10	190-195	.017	.020
YM-10	210-215	.034	.032
YM-11	190-195	.045	.055
YM-11	200-205	.018	.024
YM-11	230-235	.121	.170
YM-12	125-130	.094	.105
YM-12	170-175	.031	.026
YM-12	225-230	.015	.030
YM-13	185-190	.023	.012
YM-13	205-210	.019	<.002
YM-14	20-25	.013	.014
YM-14	45-50	.033	.022
YM-14	60-65	.072	.075
YM-14	70-75	.101	.110
YM-15	140-145	.132	.065
YM-15	190-195	.017	.010
YM-15	255-260	.059	.060
YM-16	30-35	.019	.020
YM-16	50-55	.046	.055
YM-16	70-75	.039	.042
YM-17	260-265	.018	.046
YM-17	285-290	.076	.050
YM-17	310-315	.114	.125
YM-18	55-60	.021	.028
YM-18	85-90	.011	.006
YM-18	105-110	.035	.036
YM-18	125-130	.297	.290
YM-19	35-40	.062	.070
YM-19	75-80	.013	.012
YM-19	210-215	.053	.055
YM-19	230-235	.083	.070

SAMPLE	INTERVAL	TRIAD	SKYLINE
YM-20	5-10	.011	.010
YM-20	25-30	.331	.295
YM-21	30-35	.033	.040
YM-21	45-50	.014	.020
YM-21	85-90	.032	.026
YM-22	215-220	.025	.014
YM-22	235-240	.007	<.002
YM-22	270-275	.032	.040
YM-23	40-45	.116	.115
YM-23	60-65	.026	.022
YM-23	100-105	.061	.075
YM-23	115-120	.036	.030
YM-24	75-80	.229	.270
YM-24	95-100	.095	.105
YM-24	100-105	.038	.060
YM-25	65-70	.111	.085
YM-25	70-75	.078	.165
YM-25	80-85	.023	.008
YM-26	205-210	.061	.065
YM-26	230-235	.012	.014
YM-26	260-265	.149	.240
YM-26	265-270	.099	.130
YM-27	70-75	.023	.030
YM-27	85-90	.012	.010
YM-27	120-125	.042	.034
YM-27	240-245	.032	.030
YM-28	130-135	.004	<.002
YM-28	140-145	.031	.030
YM-28	155-160	.036	.016
YM-28	195-200	.025	<.002
YM-29	200-205	.009	.010
YM-29	220-225	.046	.050
YM-29	235-240	.007	<.002
YM-30	180-185	.019	.020
YM-30	195-200	.011	.010
YM-30	230-235	.093	.016
YM-30	240-245	.027	.038

SAMPLE	INTERVAL	TRIAD	SKYLINE
YM-31	365-370	.093	.095
YM-31	375-380	.044	.044
YM-31	380-385	.015	.016
YM-32	65-70	.013	.012
YM-32	75-80	.010	.020
YM-32	190-195	.027	.032

SKYLINE LABS, INC.
1775 W. Sahuaro Dr. • P.O. Box 50106
Tucson, Arizona 85703
(602) 622-4836

REPORT OF ANALYSIS

JOB NO. TAJ 595
July 15, 1989
PROJECT NO. 0444

ASARCO INCORPORATED
Attn: Mr. Mark Miller
Southwestern Exploration
P.O. Box 5747
Tucson, AZ 85703

JUL 17 1989
SW Exploration

Analysis of 75 Pulp Samples

ITEM	SAMPLE NUMBER	FIRE ASSAY Au (oz/t)	+80 MESH (%)	-80+200 MESH (%)	-200 MESH (%)
1	YM-10 165-170	.040	13.60	36.30	50.10
2	YM-10 190-195	.020	31.90	29.40	38.70
3	YM-10 210-215	.032	41.10	28.80	30.10
4	YM-11 190-195	.055	3.90	70.00	26.10
5	YM-11 200-205	.024	33.60	33.60	32.80
6	YM-11 230-235	.170	1.00	58.40	40.60
7	YM-12 125-130	.105	17.60	52.70	29.70
8	YM-12 170-175	.026	4.50	70.90	24.60
9	YM-12 225-230	.030	1.70	65.50	32.90
10	YM-13 185-190	.012	27.70	42.60	29.70
11	YM-13 205-210	<.002	7.80	69.50	22.80
12	YM-14 20-25	.014	2.30	47.70	50.00
13	YM-14 45-50	.022	10.80	40.60	54.90
14	YM-14 60-65	.075	.30	38.70	61.00
15	YM-14 70-75	.110	15.30	42.70	42.00
16	YM-15-140-145	.065	36.00	26.00	38.00
17	YM-15 190-195	.010	24.00	40.20	35.80
18	YM-15 255-260	.060	15.90	53.20	30.90
19	YM-16 30-35	.020	14.50	54.00	31.30
20	YM-16 50-55	.055	1.00	45.20	26.90
21	YM-16 70-75	.042	30.30	37.10	32.60
22	YM-17 260-265	.046	3.80	56.50	39.70
23	YM-17 285-290	.050	1.20	70.80	27.90
24	YM-17 310-315	.125	22.70	43.70	33.60
25	YM-18 55-60	.028	.80	53.30	45.90

SKYLINE LABS, INC.
1775 W. Sahuaro Dr. • P.O. Box 50106
Tucson, Arizona 85703
(602) 622-4836

JOB NO. TAJ 595
July 15, 1989

ITEM	SAMPLE NUMBER	FIRE ASSAY Au (oz/t)	+80 MESH (%)	-80+200 MESH (%)	-200 MESH (%)
26	YM-18 85-90	.006	5.50	51.80	42.70
27	YM-18 105-110	.036	1.10	60.90	38.00
28	YM-18 125-130	.290	1.30	64.20	34.50
29	YM-19 35-40	.070	1.90	65.70	29.80
30	YM-19 75-80	.012	1.30	60.50	38.10
31	YM-19 210-215	.055	1.00	63.20	35.80
32	YM-19 230-235	.070	20.20	41.20	38.50
33	YM-20 5-10	.010	14.20	41.00	44.70
34	YM-20 25-30	.295	9.50	45.10	45.40
35	YM-21 30-35	.040	34.20	26.70	39.10
36	YM-21 45-50	.020	25.20	32.80	42.00
37	YM-21 85-90	.026	22.90	47.60	29.50
38	YM-22 215-220	.014	36.10	29.80	34.10
39	YM-22 235-240	<.002	46.80	24.30	28.90
40	YM-23 270-275	.040	27.90	33.60	38.50
41	YM-23 40-45	.115	33.00	28.70	38.30
42	YM-23 60-65	.022	31.60	31.00	37.40
43	YM-23 100-105	.075	30.70	32.90	36.50
44	YM-23 115-120	.030	31.50	34.90	33.60
45	YM-24 75-80	.270	43.20	30.50	26.30
46	YM-24 95-100	.105	47.30	31.50	21.20
47	YM-24 100-105	.060	50.00	24.70	25.10
48	YM-25 65-70	.085	46.80	24.80	28.30
49	YM-25 70-75	.165	38.00	30.10	31.90
50	YM-25 80-85	.008	38.60	31.20	30.20

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53	YM-26 260-265	.240	44.20	20.50	35.30
54	YM-26 265-270	.130	44.30	23.30	32.40
55	YM-27 70-75	.030	39.60	36.40	24.00
56	YM-27 85-90	.010	27.90	34.10	38.00
57	YM-27 120-125	.034	28.10	38.20	33.80
58	YM-27 240-245	.030	20.70	40.80	38.50
59	YM-28 130-135	<.002	1.10	73.80	25.10
60	YM-28 140-145	.030	2.50	74.40	23.10
61	YM-28 155-160	.016	5.90	70.50	23.60
62	YM-28 195-200	<.002	.20	65.20	34.40
63	YM-28 235-240 *	.000	.00	.00	.00
64	YM-29 200-205	.010	2.60	66.30	31.10
65	YM-29 220-225	.050	32.10	42.90	25.00
66	YM-29 235-240	<.002	31.90	42.50	25.60
67	YM-30 180-185	.020	5.40	60.50	17.00
68	YM-30 195-200	.010	8.70	67.50	23.80
69	YM-30 230-235	.016	6.60	62.40	31.00
70	YM-30 240-245	.038	6.10	66.70	27.20
71	YM-31 365-370	.095	14.00	50.90	35.10
72	YM-31 375-380	.044	15.60	66.20	18.20
73	YM-31 380-385	.016	20.00	49.90	30.10
74	YM-32 65-70	.012	2.30	61.40	36.30
75	YM-32 75-80	.020	16.20	65.80	32.50
76	YM-32 190-195	.032	16.30	54.10	29.60

*NOTE: Sample not received.

cc: Mr. J. D. Sell

REGISTERED ASSAYER
CERTIFICATE NO. 9425
WILLIAM L. LEHMBECK
Arizona

7/15/89

Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

James A. Martin
Arizona Registered Assayer No. 11122

JDS

SKYLINE LABS, INC.
1775 W. Sahuaro Dr. • P.O. Box 50106
Tucson, Arizona 85703
(602) 622-4836

REPORT OF ANALYSIS

JOB NO. TAJ 595
July 15, 1989
PROJECT NO. 0444
PAGE 1 OF 3

ASARCO INCORPORATED
Attn: Mr. Mark Miller
Southwestern Exploration
P.O. Box 5747
Tucson, AZ 85703

JUL 17 1989
SW Exploration

Analysis of 75 Pulp Samples

ITEM	SAMPLE NUMBER	FIRE ASSAY Au (oz/t)	+80 MESH (%)	-80+200 MESH (%)	-200 MESH (%)
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3	YM-10 210-215	.032	41.10	28.80	30.10
4	YM-11 190-195	.055	3.90	70.00	26.10
5	YM-11 200-205	.024	33.60	33.60	32.80
6	YM-11 230-235	.170	1.00	58.40	40.60
7	YM-12 125-130	.105	17.60	52.70	29.70
8	YM-12 170-175	.026	4.50	70.90	24.60
9	YM-12 225-230	.030	1.70	65.50	32.90
10	YM-13 185-190	.012	27.70	42.60	29.70
11	YM-13 205-210	<.002	7.80	69.50	22.80
12	YM-14 20-25	.014	2.30	47.70	50.00
13	YM-14 45-50	.022	10.80	40.60	54.90
14	YM-14 60-65	.075	.30	38.70	61.00
15	YM-14 70-75	.110	15.30	42.70	42.00
16	YM-15-140-145	.065	36.00	26.00	38.00
17	YM-15 190-195	.010	24.00	40.20	35.80
18	YM-15 255-260	.060	15.90	53.20	30.90
19	YM-16 30-35	.020	14.50	54.00	31.30
20	YM-16 50-55	.055	1.00	45.20	26.90
21	YM-16 70-75	.042	30.30	37.10	32.60
22	YM-17 260-265	.046	3.80	56.50	39.70
23	YM-17 285-290	.050	1.20	70.80	27.90
24	YM-17 310-315	.125	22.70	43.70	33.60
25	YM-18 55-60	.028	.80	53.30	45.90

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31	YM-19 210-215	.055	1.00	63.20	35.80
32	YM-19 230-235	.070	20.20	41.20	38.50
33	YM-20 5-10	.010	14.20	41.00	44.70
34	YM-20 25-30	.295	9.50	45.10	45.40
35	YM-21 30-35	.040	34.20	26.70	39.10
36	YM-21 45-50	.020	25.20	32.80	42.00
37	YM-21 85-90	.026	22.90	47.60	29.50
38	YM-22 215-220	.014	36.10	29.80	34.10
39	YM-22 235-240	<.002	46.80	24.30	28.90
40	YM-23 270-275	.040	27.90	33.60	38.50
41	YM-23 40-45	.115	33.00	28.70	38.30
42	YM-23 60-65	.022	31.60	31.00	37.40
43	YM-23 100-105	.075	30.70	32.90	36.50
44	YM-23 115-120	.030	31.50	34.90	33.60
45	YM-24 75-80	.270	43.20	30.50	26.30
46	YM-24 95-100	.105	47.30	31.50	21.20
47	YM-24 100-105	.060	50.00	24.70	25.10
48	YM-25 65-70	.085	46.80	24.80	28.30
49	YM-25 70-75	.165	38.00	30.10	31.90
50	YM-25 80-85	.008	38.60	31.20	30.20

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JOB NO. TAJ 595
July 15, 1989

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54	YM-26 265-270	.130	44.30	23.30	32.40
55	YM-27 70-75	.030	39.60	36.40	24.00
56	YM-27 85-90	.010	27.90	34.10	38.00
57	YM-27 120-125	.034	28.10	38.20	33.80
58	YM-27 240-245	.030	20.70	40.80	38.50
59	YM-28 130-135	<.002	1.10	73.80	25.10
60	YM-28 140-145	.030	2.50	74.40	23.10
61	YM-28 155-160	.016	5.90	70.50	23.60
62	YM-28 195-200	<.002	.20	65.20	34.40
63	YM-28 235-240 *	.000	.00	.00	.00
64	YM-29 200-205	.010	2.60	66.30	31.10
65	YM-29 220-225	.050	32.10	42.90	25.00
66	YM-29 235-240	<.002	31.90	42.50	25.60
67	YM-30 180-185	.020	5.40	60.50	17.00
68	YM-30 195-200	.010	8.70	67.50	23.80
69	YM-30 230-235	.016	6.60	62.40	31.00
70	YM-30 240-245	.038	6.10	66.70	27.20
71	YM-31 365-370	.095	14.00	50.90	35.10
72	YM-31 375-380	.044	15.60	66.20	18.20
73	YM-31 380-385	.016	20.00	49.90	30.10
74	YM-32 65-70	.012	2.30	61.40	36.30
75	YM-32 75-80	.020	16.20	65.80	32.50
76	YM-32 190-195	.032	16.30	54.10	29.60

*NOTE: Sample not received.

cc: Mr. J. D. Sell

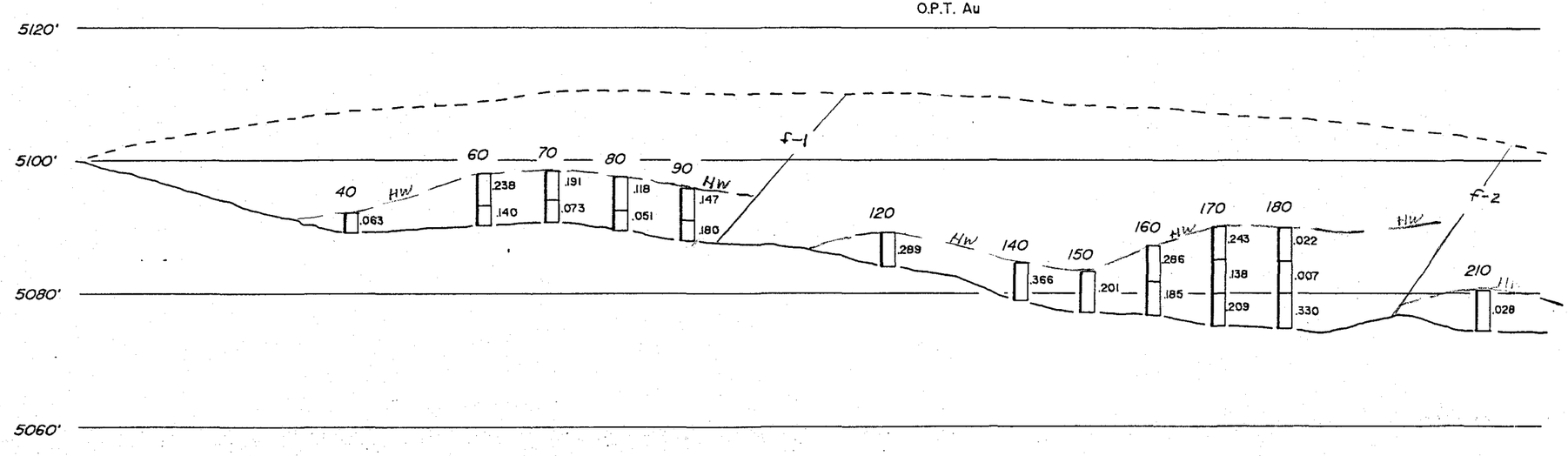
REGISTERED ASSAYER CERTIFICATE NO. 9425 WILLIAM L. LEHMBECK ARIZONA

7/15/89

Figure 2

NORTHWEST WALL ELEVATION
LOOKING NORTHWEST

O.P.T. Au



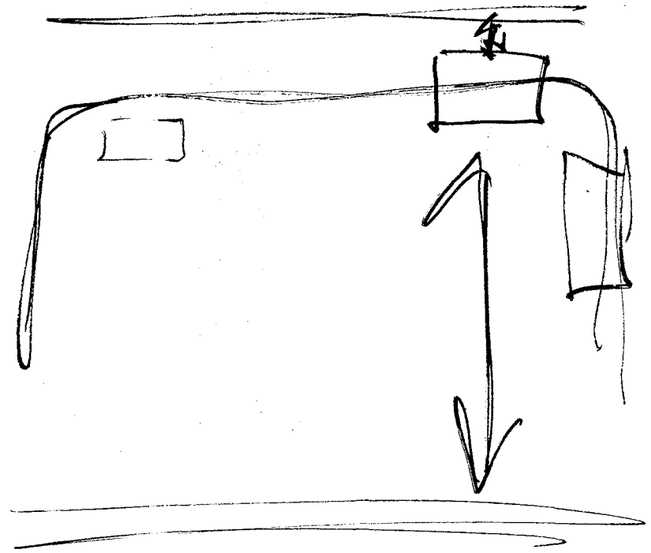
ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA
M.A.M. **7-89**

0 20'

mn6742 MAM/dam tuc 07-13-89

.18 2%

100' 5Z 1.9%



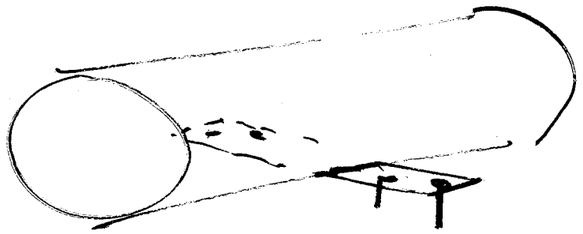
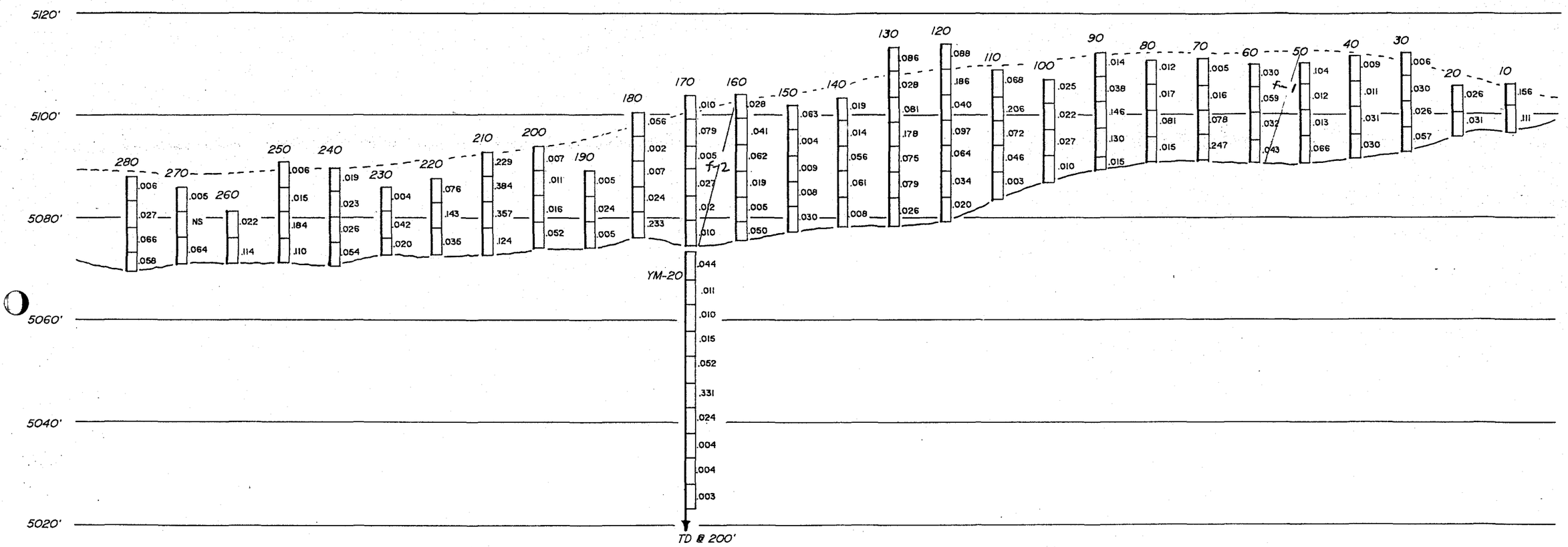


Figure 3

SOUTHEAST WALL ELEVATION
LOOKING SOUTHEAST

O.P.T. Au



5 set

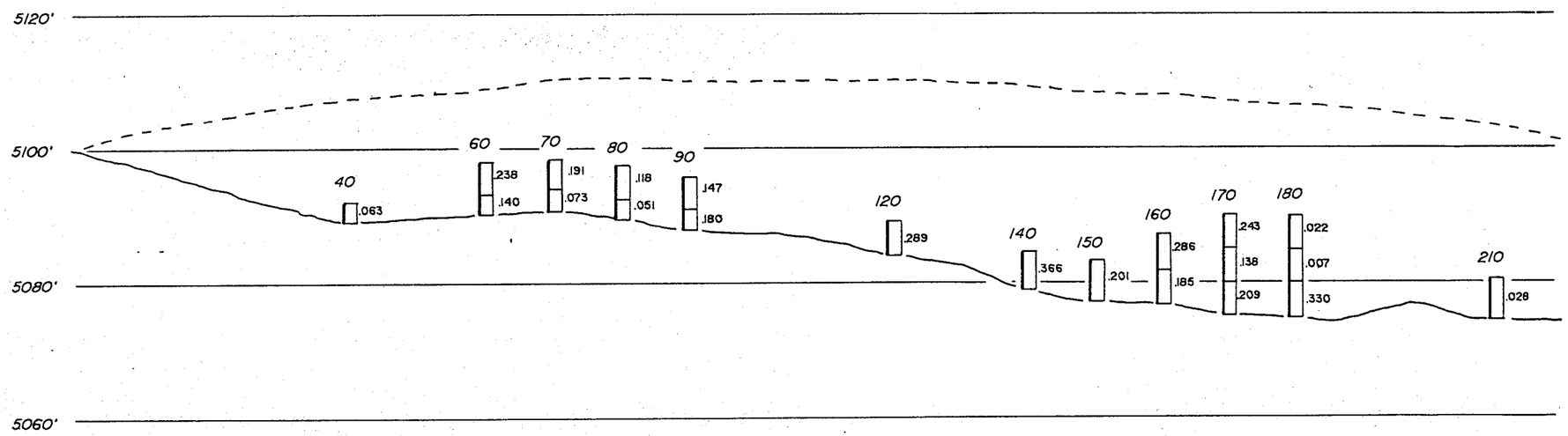
ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA
M.A.M. **7-89**

0 20'

mn6741 MAM/dam tuc 07-13-89

NORTHWEST WALL ELEVATION
LOOKING NORTHWEST

O.P.T. Au



ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA

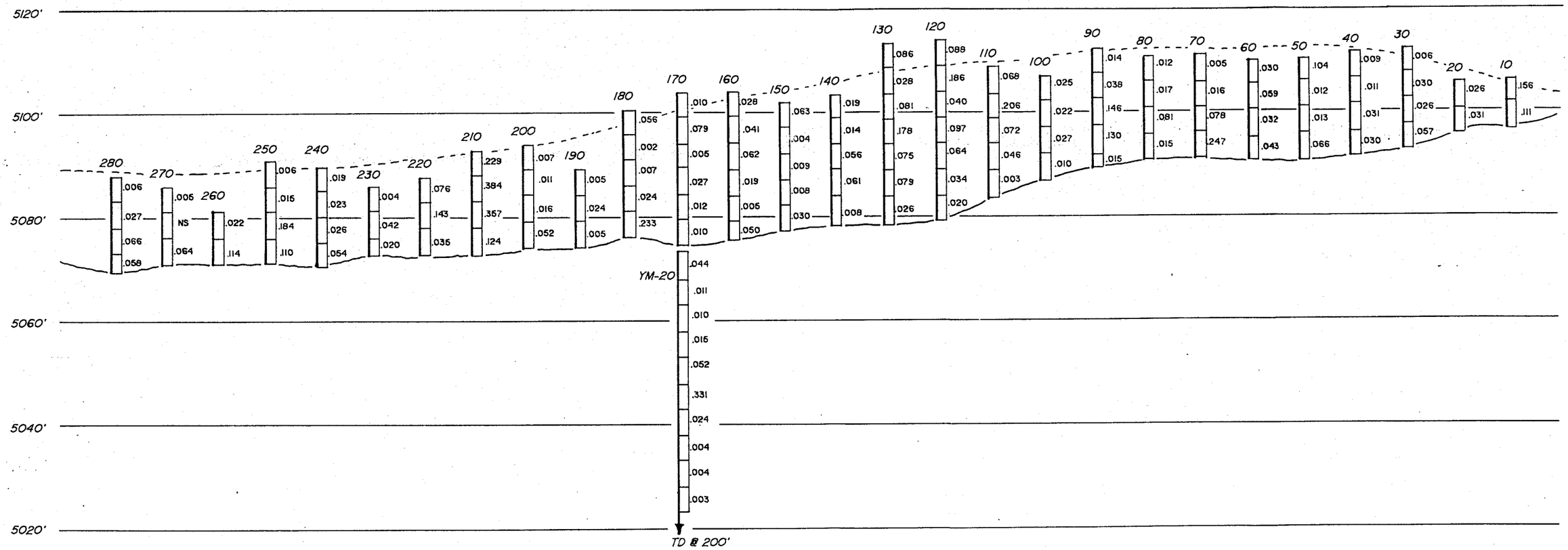
M.A.M. **7-89**

0 20'

mn6742 MAM/dam tuc 07-13-89

SOUTHEAST WALL ELEVATION
LOOKING SOUTHEAST

O.P.T. Au



ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA
M.A.M. **7-89**

0 20'

mn6741 MAM/dam tuc 07-13-89

7/14/89

FROM: W. L. KURTZ

TO: R.L. BROWN

YARNELL PROJECT
NORGOLD-WESTERN BUILDING AND MINING

ATTACHED IS THE NSR Norgold is obligated to pay WBM.

Exhibit Two

Please note the definition C (i) and please render or have rendered an interpretation of this item. Does it really say what it says?

cc: JDSell w/o
DFSkidmore w/o (Mary I will discuss and give Skidmar a copy)

FROM: ~~J. D. SELL~~ D F Skidmore July 18, 1989

TO: Bill Kurtz

YES! but this sure it wasn't meant to include any mining costs!

- clear language — you can deduct hauling & haulage but no other mining costs

- assume we will pay $175,000 Royalty year 1 & 2!

- 3.A. "Commingle" — not fun!

ASARCO

Southwestern Exploration Division

JD

July 14, 1989

D.F. Skidmore
D.E. Crowell

Open Cut Sampling
Yarnell Project
Yavapai County, AZ

You have previously received the raw data which includes the assay data and sample intervals and the plan map with survey points of the open cut area.

We now submit a copy of the plan map with assay ranges and notes on debris banks and skipped samples on the eastern end of the cut (190E-280E). The samples were taken on ten foot line spacings with five foot sample intervals on the lines. The intervals represent (as close as possible) five vertical feet (the linear distance may be greater depending upon the slope of the wall). The attached long section assumes that the intervals are in vertical feet. Long sections were constructed by plotting the top and bottom of the cut and projecting the sample lines to the face (as if it were vertical).

Two cross sections looking down the strike of the deposit have also been constructed at station 120(A-A') and station 170(B-B'). Station 170 also includes drill hole YM-20 and indicates the full thickness of the mineralized zone at this location. By coloring the intervals of assays one may get an indication of the grade expected when drilling the cut for the metallurgical sample. The very high grade assay seen at Station 210 was taken on a hematite gouge fracture and may not be representative of the sample area. The only gouge seen in the deposit is located along the hanging wall of the Yarnell Fault as shown by five foot of gouge on the two cross sections.

Survey coordinates along with assays from the open cut sampling and YM-20 are also attached.

As previously mentioned, SWED looks forward to your supervision in the securing (drilling, blasting, loading) and transport of the sample to Reno. Miners, equipment, etc. are available in the Yarnell area and can be secured through M.A. Miller, Project Geologist.

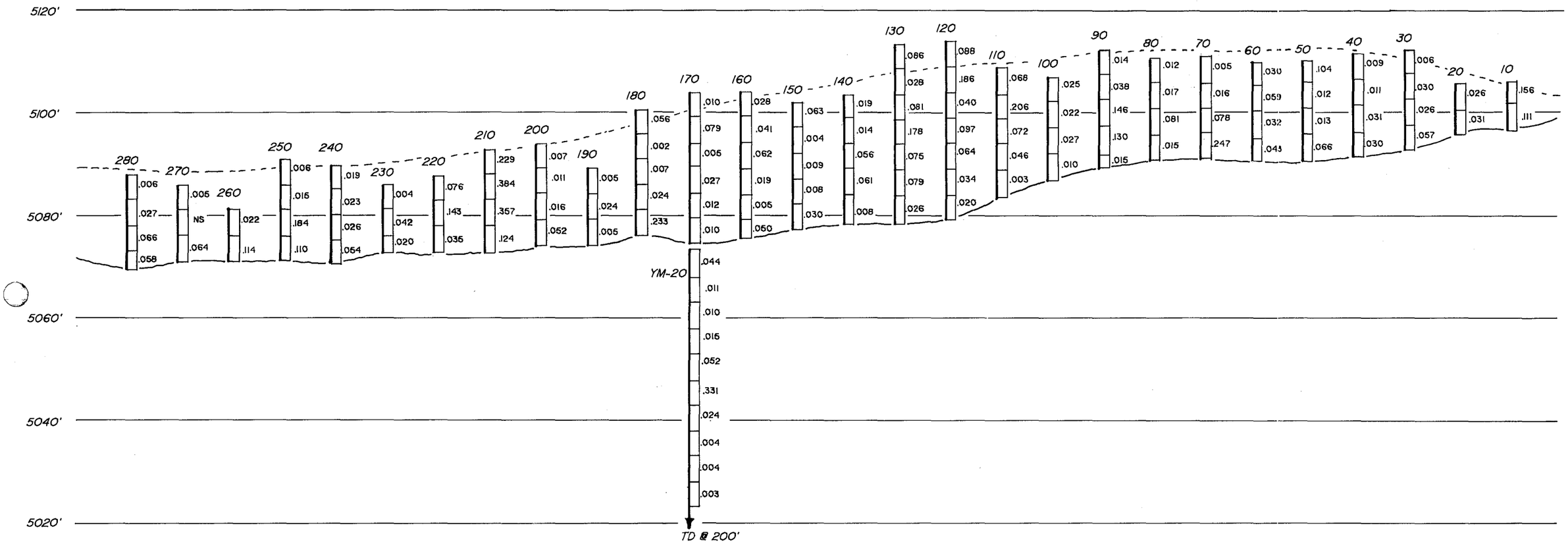
J.D. Sell/M.A. Miller

JDS/MAM:mek
Atts.

cc: R.L. Brown
F.T. Graybeal
W.L. Kurtz
S.A. Anzalone
T.E. Scartaccini
W.D. Gay

SOUTHEAST WALL ELEVATION
LOOKING SOUTHEAST

O.P.T. Au



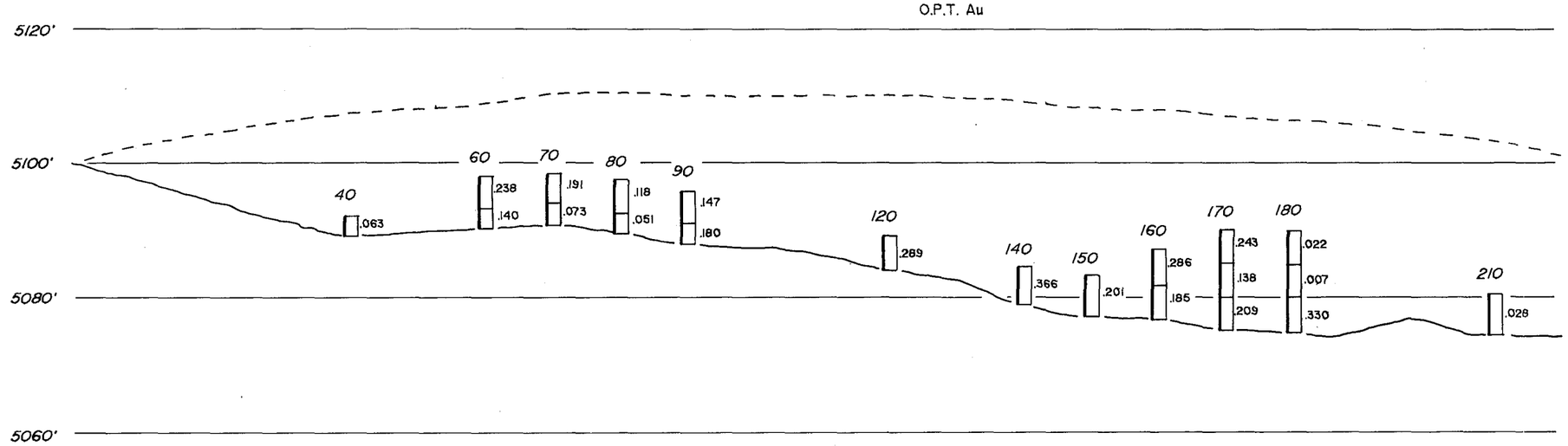
ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA
M.A.M. **7-89**

0 20'

mn6741 MAM/dam tuc 07-13-89

NORTHWEST WALL ELEVATION
LOOKING NORTHWEST

O.P.T. Au

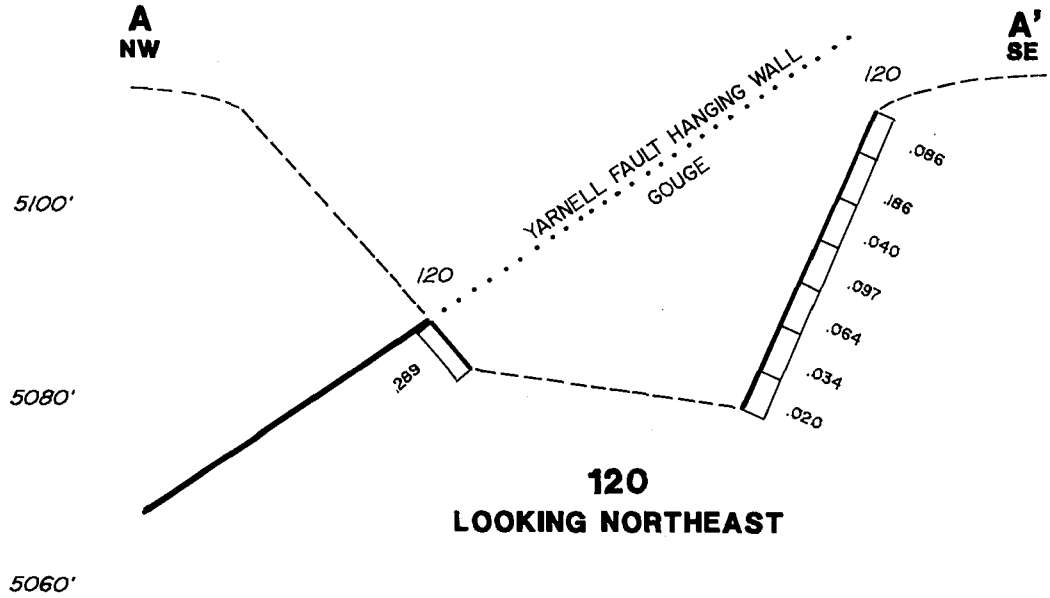


ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA

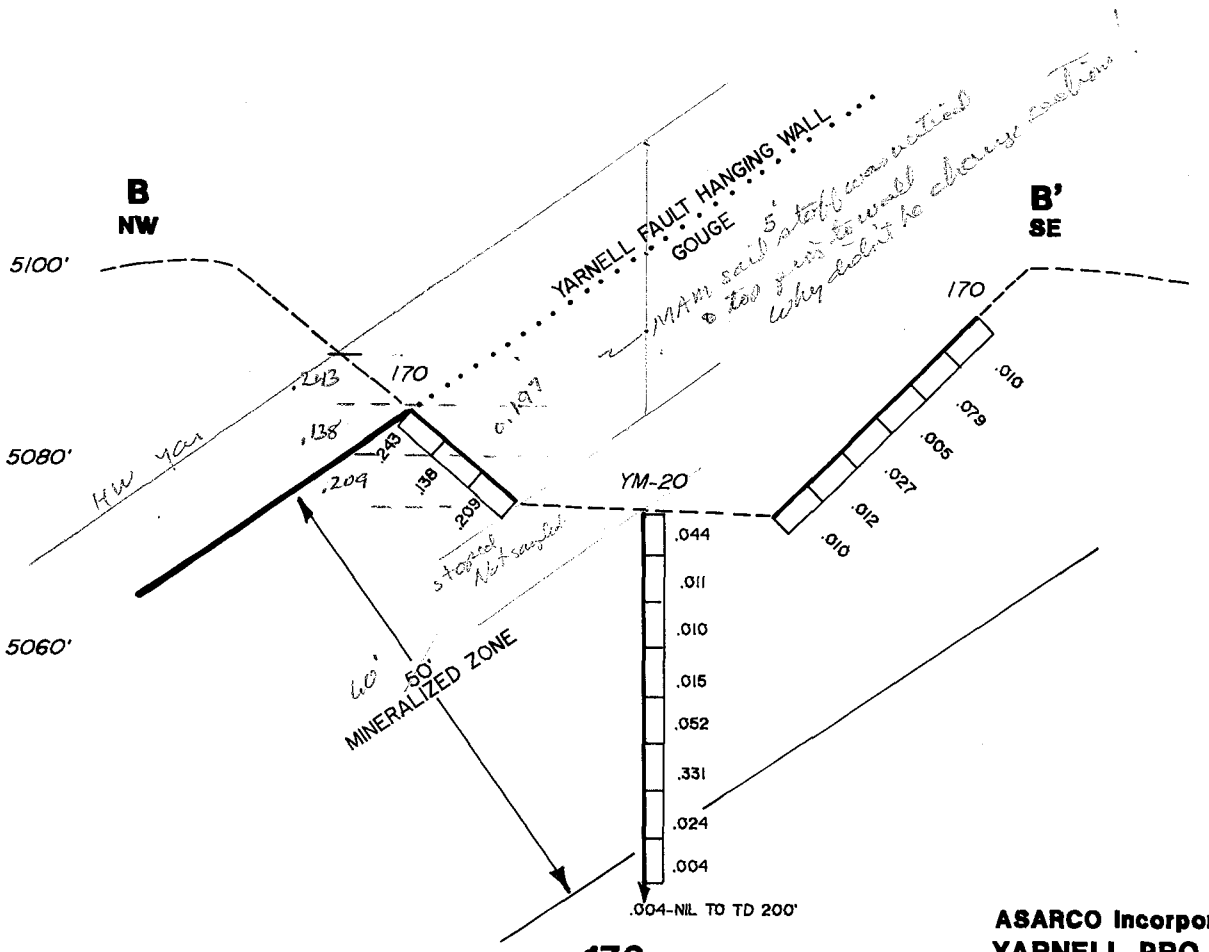
M.A.M. **7-89**

0 20'

mn6742 MAM/dam tuc 07-13-89



120
LOOKING NORTHEAST



170
LOOKING NORTHEAST

ASARCO Incorporated
YARNELL PROJECT
OPEN CUT SECTIONS THRU STATIONS 120 & 170
YAVAPAI CO., ARIZONA

J.D.S. 0 20' 7-89

mn6745 JDS/dam tuc 07-14-89

From Section Station 170 & YAR-20 drill hole

HW

Wwall

0.243	~~5'~~	9 1/2
0.138	~~5'~~	9 1/2
0.209	~~5'~~	9 1/2

28 1/2 - 0.197

est on 38 1/2' same grade

gap not sampled 10' prob. 0.2 grade as it was partially stoped

74 1/2' ≅ 0.135

YAR-20

0.044	5'	
0.011	5'	0.02
0.010	5'	
0.015	5'	
0.052	5'	0.192
0.331	5'	
0.024	5'	

10,040 / 74.5

YARNELL PROJECT
SURVEY OF OPEN-CUT

COORDINATES

NUMBER	NORTH	EAST	ELEVATION
1	100,169.6	50,031.6	5,106.8
2	100,199.4	50,038.4	5,100.7
3	100,238.4	50,050.5	5,094.3
4	100,267.4	50,060.8	5,084.7
5	100,305.0	50,072.5	5,074.0
6	100,327.4	50,045.8	5,069.2
7	100,383.4	50,001.2	5,056.9
8	100,305.4	50,079.7	5,058.7
9	100,258.9	50,084.4	5,066.7
10	100,308.9	50,144.0	5,063.6
11	100,265.8	50,134.6	5,066.6
12	100,202.6	50,191.7	5,070.7
13	100,191.2	50,196.9	5,070.3
14	100,187.7	50,160.7	5,089.9
15	100,175.9	50,120.7	5,089.7
16	100,122.1	50,101.6	5,095.8
17	100,102.3	50,073.5	5,102.6
18	100,075.4	50,035.4	5,109.0
19	100,051.6	50,006.8	5,112.3
20	100,119.1	49,985.2	5,110.1
21	100,085.6	49,977.1	5,110.2
22	100,055.8	49,953.3	5,107.0
23	100,030.5	49,930.6	5,099.8
24	100,028.5	49,992.5	5,113.1
25	99,998.8	49,936.9	5,099.6
0E	100,002.3	49,947.9	5,099.2
10E	100,011.4	49,956.5	5,097.5
20E	100,017.7	49,964.1	5,095.8
30E	100,026.4	49,969.5	5,093.1
40E	100,029.6	49,976.8	5,091.7
50E	100,036.0	49,987.5	5,090.7
60E	100,046.4	49,993.9	5,090.6
70E	100,055.7	49,999.3	5,091.8
80E	100,064.4	50,000.2	5,091.3
90E	100,072.8	50,006.3	5,089.8
100E	100,080.6	50,012.1	5,087.0
110E	100,087.2	50,019.7	5,083.9
120E	100,093.7	50,027.6	5,079.6
130E	100,098.4	50,039.3	5,078.2
140E	100,101.5	50,049.7	5,078.1
150E	100,108.7	50,056.1	5,077.5
160E	100,117.5	50,060.1	5,075.7
170E	100,128.1	50,066.2	5,074.3
180E	100,131.9	50,078.2	5,081.3
190E	100,134.5	50,089.7	5,078.2
200E	100,146.2	50,089.2	5,074.0

210E	100,157.6	50,093.1	5,072.5
220E	100,166.7	50,099.4	5,072.3
230E	100,175.4	50,106.0	5,072.8
240E	100,184.9	50,109.7	5,071.0
250E	100,191.9	50,116.0	5,071.0
260E	100,196.8	50,122.5	5,070.9
270E	100,204.3	50,133.5	5,070.8
280E	100,211.3	50,140.0	5,069.9
290E	100,203.8	50,165.1	5,071.9
40W	100,053.3	49,958.5	5,089.2
60W	100,064.1	49,974.8	5,090.9
70W	100,071.8	49,983.0	5,091.0
80W	100,079.9	49,987.2	5,089.9
90W	100,091.6	49,990.2	5,088.1
*100W	100,101.8	49,994.5	5,087.7
*110W	100,106.2	50,000.6	5,086.2
120W	100,112.5	50,006.3	5,084.3
*130W	100,118.8	50,013.2	5,083.3
140W	100,121.9	50,028.0	5,079.1
150W	100,129.8	50,034.5	5,077.7
160W	100,134.6	50,039.2	5,076.9
170W	100,145.0	50,046.3	5,075.1
180W	100,154.8	50,050.4	5,074.7
190W	100,166.5	50,051.0	5,074.0
200W	100,181.6	50,045.6	5,077.3
210W	100,189.3	50,048.3	5,076.1
*220W	100,199.8	50,050.5	5,076.2
*230W	100,208.7	50,055.4	5,074.8
*240W	100,215.4	50,058.2	5,074.1
*250W	100,227.0	50,062.0	5,071.8
*260W	100,237.0	50,064.9	5,069.2
*270W	100,244.3	50,072.4	5,069.4
*280W	100,250.3	50,080.5	5,067.1
*290W	100,258.9	50,084.5	5,066.7

*No samples taken.

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-30-89

COMPANY Asarco Lab #062989-5

Rock Chip Samples

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
OC 10-S-0-5	.156		
" 10-S-5-10	.111		
" 10-S-10-13	.010		
" 15-S-0-5	.008		
" 20-S-0-5	.026		
" 20-S-5-10	.031		
" 30-S-0-5	.006		
" 30-S-5-10	.030		
" 30-S-10-15	.026		
" 30-S-15-20	.057		
" 40-S-0-5	.009		
" 40-S-5-10	.011		
" 40-S-10-15	.031		
" 40-S-15-20	.030		
" 50-S-0-5	.104		
" 50-S-5-10	.012		
" 50-S-10-15	.013		
" 50-S-15-20	.066		
" 60-S-0-5	.030		
" 60-S-5-10	.059		
" 60-S-10-15	.032		
" 60-S-15-20	.043		
" 70-S-0-5	.005		
" 70-S-5-10	.016		
" 70-S-10-15	.078		

Certified Assays When Signed And Dated
7-1-89 Frank Eldo
DATE SIGNATURE

5 1989
SW Exploration

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 · Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-30-89

COMPANY Asarco Lab #062989-6

Rock Chip Samples

Page 2

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
OC 70-S-15-20	.247		
" 75-S-0-5	.027		
" 80-S-0-5	.012		
" 80-S-5-10	.017		
" 80-S-10-15	.081		
" 80-S-15-20	.015		
" 90-S-0-5	.014		
" 90-S-5-10	.038		
" 90-S-10-15	.146		
" 90-S-15-20	.130		
" 90-S-20-23	.015		
" 100-S-0-5	.025		
" 100-S-5-10	.022		
" 100-S-10-15	.027		
" 100-S-15-20	.010		
" 105-S-0-5	.003		
" 110-S-0-5	.068		
" 110-S-5-10	.206		
" 110-S-10-15	.072		
" 110-S-15-20	.046		
" 110-S-20-25	.003		
" 120-S-0-5	.088		
" 120-S-5-10	.186		

Certified Assays When Signed And Dated
6-30-89 [signature]
DATE SIGNATURE

ASARCO Incorporated
JUL 5 1989
SW Exploration

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3616

DATE 7-4-89

COMPANY ASARCO LAB # 070189-7

OC- Rock Chip Sample

Page 4

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
120-S-10-15	.040		
120-S-15-20	.097		
120-S-20-25	.064		
120-S-25-30	.034		
120-S-30-35	.020		
130-S-0-5	.086		
130-S-5-10	.028		
130-S-10-15	.081		
130-S-15-20	.178		
130-S-20-25	.075		
130-S-25-30	.079		
130-S-30-35	.026		
140-S-0-5	.019		
140-S-5-10	.014		
140-S-10-15	.056		
140-S-15-20	.061		
140-S-20-25	.008		
150-S-0-5	.063		
150-S-5-10	.004		
150-S-10-15	.009		
150-S-15-20	.008		
150-S-20-25	.030		
160-S-0-5	.028		
160-S-5-10	.041		
160-S-10-15	.062		

ASARCO Incorporated
JUL 5 1989

Certified Assays When Signed And Dated
7-4-89
DATE SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB #070189-8

OC- Rock Chip Samples

PAGE 3

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
160-S-15-20	.019		
160-S-20-25	.005		
160-S-25-29	.050		
170-S-0-5	.010		
170-S-5-10	.079		
170-S-10-15	.005		
170-S-15-20	.027		
170-S-20-25	.012		
170-S-21-23	.022		
170-S-21-23	.022		
170-S-25-30	.010		
180-S-0-5	.056		
180-S-5-10	.002		
180-S-10-15	.007		
180-S-15-20	.024		
180-S-20-25	.233		
180-S-21-23	.007		
190-S-0-5	.005		
190-S-5-10	.024		
190-S-10-15	.005		
200-S-0-5	.007		
200-S-5-10	.011		
200-S-10-15	.016		
200-S-15-20	.052		
200-S-31-33	.022		

ASARCO Incorporated
JUL 5 1989
SW Exploration

Certified Assays When Signed And Dated
7-4-89 DATE
SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB #070189-9

OC- Rock Chip Samples

Page 5

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
210-S-0-5	.299		
210-S-5-10	.384		
210-S-10-15	.357		
210-S-15-20	.124		
220-S-0-5	.076		
220-S-5-10	.143		
220-S-10-15	.035		
230-S-0-5	.004		
230-S-5-10	.042		
230-S-10-13	.020		
240-S-0-5	.019		
240-S-5-10	.023		
240-S-10-15	.026		
240-S-15-19	.054		
290-S-0-5	.002		
290-S-5-10	.143		
290-S-10-15	.015		
0-S-0-5	.015		
0-S-5-10	.028		
250-S-0-5	.006		
250-S-5-10	.015		
250-S-10-15	.184		
250-S-15-20	.110		
260-S-0-5	.022		
260-S-5-10	.114		

ASARCO Incorporated
JUL 5 1989
SW Exploration

Certified Assays When Signed And Dated
7-4-89 [illegible]
DATE SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB # 070289-10

OC-Rock Chip Samples

Page 6

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
270-S-0-5	.005		
270-S-5-10	. No Sample		
270-S-10-15	.064		
280-S-0-5	.006		
280-S-5-10	.027		
280-S-10-15	.066		
280-S-15-18	.058		
10-N-1-3	.022		
40-N-0-3	.063		
50-N-31-34	.010		
60-N-0-5	.238		
60-N-5-8	.140		
70-N-0-5	.191		
70-N-5-8	.073		
80-N-0-5	.118		
80-N-5-8	.051		
90-N-0-5	.147		
90-N-5-8	.180		
100-N-12-14	.027		
120-N-0-5	.289		
130-N-17-19	.010		
140-N-0-5	.366		
150-N-0-6	.201		
~~160-N-0-5~~	~~.286~~		
160-N-5-10	.185		

ASARCO Incorporated
JUL 5 1989
SW Exploration

Certified Assays When Signed And Dated
7-4-89 [illegible]
DATE SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 7-4-89

COMPANY ASARCO LAB #070289-11

OC- Rock Chip Samples

Page 7

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
170-N-0-5	.243		
170-N-5-10	.138		
170-N-10-15	.209		
180-N-0-5	.022		
180-N-5-10	.007		
180-N-10-15	.320		
210-N-0-6	.028		

Certified Assays When Signed And Dated

DATE SIGNATURE

ASARCO Incorporated
JUL 15 1989
SW Exploration

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2764 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-12-89

COMPANY Asarco Lab # 061189-1

Hole # 20 Page # 1

Sample Description	Ounces per ton AU (gold)	AG (silver)	Remarks
YM 20 0-5	.044		
" " 1-4	.021		
" " 5-10	.011		
" " 10-15	.010		
" " 15-20	.015		
" " 20-25	.052		
" " 25-30	.331		
" " 30-35	.024		
" " 35-40	.004		
" " 40-45	.004		
" " 45-50	.003		
" " 50-55	.001		
" " 55-60	.001		
" " 57-59	.007		
" " 60-65	.002		
" " 65-70	.002		
" " 70-75	.002		
" " 75-80	.001		
" " 80-85	.002		
" " 85-90	.001		
" " 90-95	.tr		
" " 95-100	.tr		
" " 100-105	.nil		

Certified Assays When Signed And Dated
DATE 6-11-89 SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-11-89

COMPANY Asarco Lab # 061189-1

Hole # 20 Page # 2

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
YM 20 105-110	.tr		
" " 110-115	.004		
" " 115-120	.002		
" " 120-125	.003		
" " 123-124	.022		
" " 125-130	.001		
" " 130-135	.001		
" " 135-140	.002		
" " 140-145	.001		

Certified Assays When Signed And Dated
DATE 6-11-89
SIGNATURE

BULK ASSAY REPORT

TRIAD MINERALS CO.
ASSAYING & CONSULTING
P.O. Box 2754 - Mile Post 115, Hwy. 89
Wickenburg, Arizona 85358
602-684-3816

DATE 6-13-89

COMPANY Asarco Lab # 061289-1

Hole # 20 Page # 3

Sample Description	Ounces per ton AU (gold)	Ounces per ton AG (silver)	Remarks
YM 20 145-150	.003		
" " 150-155	.tr		
" " 155-160	.tr		
" " 160-165	.nil		
" " 165-170	.nil		
" " 170-175	.002		
" " 175-180	.001		
" " 180-185	.001		
" " 185-190	.tr		
" " 190-195	.nil		
" " 196-197	.007		
" " 195-200	.nil		

Certified Assays When Signed And Dated
6-13-89 [signature]
DATE SIGNATURE

7/14

Mark Madison ~~Mr. Roberts~~ Allegiance

Present drilling to complete 10,000 ft

May offer second 10,000 ; Question 2 rig available ?? Change of contract, in footage - hourly ??

Madison will reverse costs ~~and~~ give up thought on both footage + hourly

He does not think he'll have a second rig available until 3rd week in August.

JDS - 7/18 asked Chris Moat to make the contact, wk

JDS

ASARCO

Southwestern Exploration Division

July 14, 1989

W.L. Kurtz

Alvarado Mine
Yavapai County, AZ

Jerry Haggard returned my call concerning the ownership of the Alvarado Mine. As they are a client of his and he goes skiing with them, he does not wish to act as agent for us.

Scarth Oil
901 So Polk
Amarillo, TX 79101

Bob Scarth
Jim Marcun
806/373-6932

Jerry was of the opinion that Scarth bought the property for $4 million (?) and thought it would be better if Norgold contacted the owners rather than Asarco, as the price would certainly go up with Asarco's name.

James D. Sell

JDS:mek

James D. Sell

FEDERAL EXPRESS

7/14/89

FROM: W. L. KURTZ

TO: R. L. BROWN

ARNELL

Here is a set of sections + location map Mr. Sell had Lou Jansen produce.

This is all the actual assays — I sent you a composite list on which I indicated the assays I cut and some of the ones I did not cut.

cc. JDSell w/o

ASARCO

Southwestern Mining Department

July 13, 1989

TO: J. D. Sell

RE: Transfer of Drill Hole Cross Sections

This letter will transfer the drill hole cross sections of the Yarnell project to you. These are colored cross sections at a scale of 100 feet/inch showing the drill hole assays in both graphical form and by value. Engineering and Computer Services is sending you the following sections with file numbers of:

N50W sections looking N40E

YAR+400 N50W
YAR+550 N50W
YAR+670 N50W
YAR+860 N50W
YAR+1050 N50W
YAR+1200 N50W
YAR+1380 N50W
YAR+1570 N50W
YAR+1700 N50W
YAR+1900 N50W
YAR+2100 N50W

N40E sections looking N50W

YAR-000 N40E
YAR-200 N40E
YAR-400 N40E
YAR-575 N40E
YAR-700 N40E
YAR-850 N40E

Please see me if you have any questions or suggestions.

L. J. Jansen

LJJ/mck

ASARCO

Southwestern Mining Department

July 17, 1989

TO: J. D. Sell

RE: Transfer of Drill Hole Cross Sections and Plan Maps

This letter will transfer a second set of drill hole cross sections and two copies of a plan map of the open-cut survey points of the Yarnell project to you. These are colored cross sections at a scale of 100 feet/inch showing the drill hole assays in both graphical form and by value. Engineering and Computer Services is sending you the following sections with file numbers of:

N50W sections looking N40E

YAR+400 N50W
YAR+550 N50W
YAR+670 N50W
YAR+860 N50W
YAR+1050 N50W
YAR+1200 N50W
YAR+1380 N50W
YAR+1570 N50W
YAR+1700 N50W
YAR+1900 N50W
YAR+2100 N50W

given back to LJJ on 8-15- for his use in making new ones.

N40E sections looking N50W

YAR-000 N40E
YAR-200 N40E
YAR-400 N40E
YAR-575 N40E
YAR-700 N40E
YAR-850 N40E

Plan maps of open-cut

YAR-OPEN-CUT

Please see me if you have any questions or suggestions

L. J. Jansen

LJJ/mck
encls.

To JDS

Date 7/17 Time 12:15

WHILE YOU WERE OUT

M W D Gay

of

Phone

Area Code Number Extension

TELEPHONED		PLEASE CALL	
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message Ready 5 sites to drill
other 3 tomorrow

Operator

AMPAD EFFICIENCY®

23-000 50 SHT. PAD
23-001 250 SHT. DISPENSER BOX

F.T. Graybeal
N.Y. office

7/17/89

JDS

36 Last Hole

Depth	
250	A halfway between 24 & 6
350	B half way ± between west of 6 & 17
400	C half way between 17 & 31 or 26 & 33
350	D half way between 5 & 33
350	E half way between 33 & 27 or 31 & 9
350	F half way between 15 & 9
250	G " " " 19 & 28
200-250	H. due E off 19 about ±150'

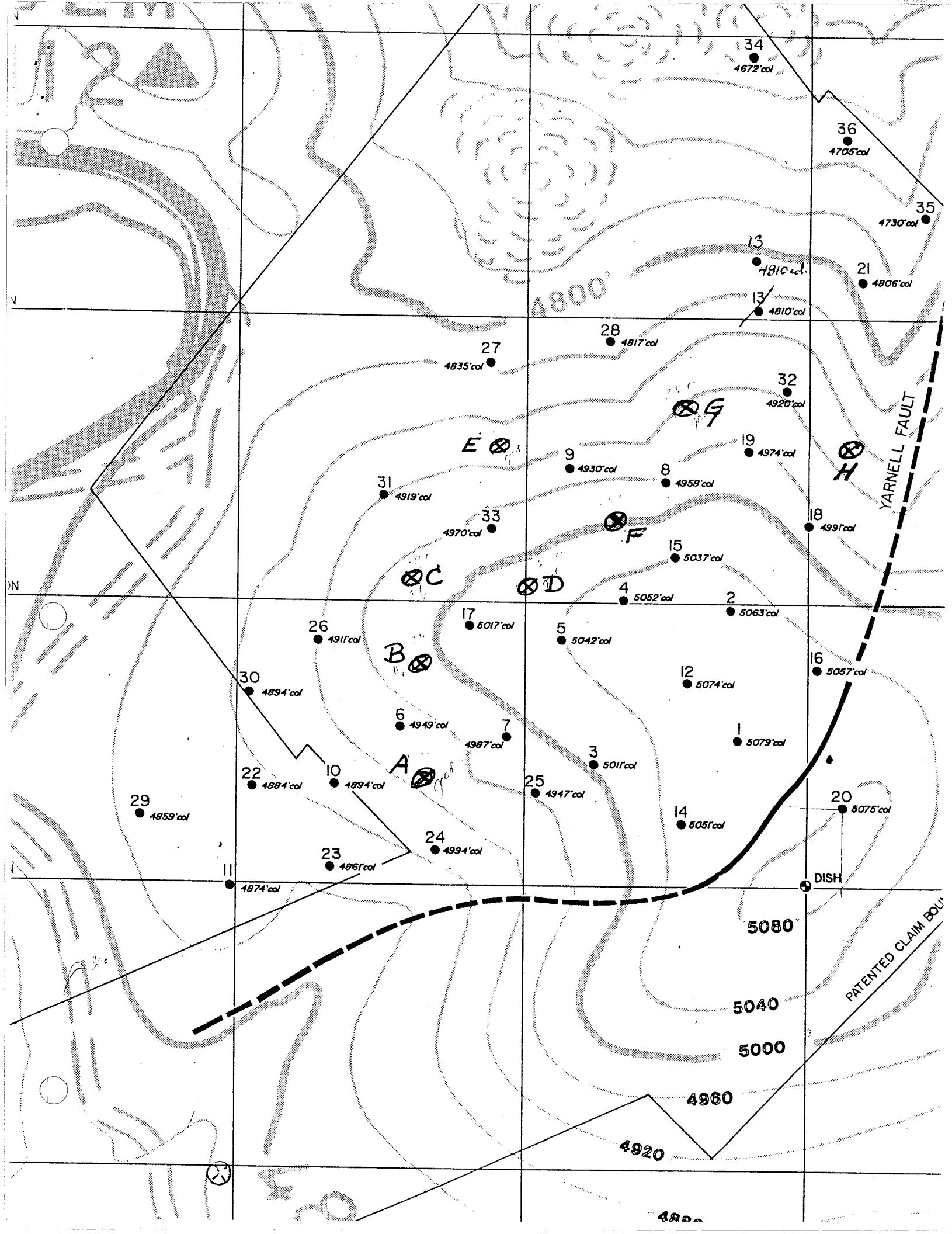
Map attached showing the above drill holes which will complete the 10,000 feet of drilling of Phase II.

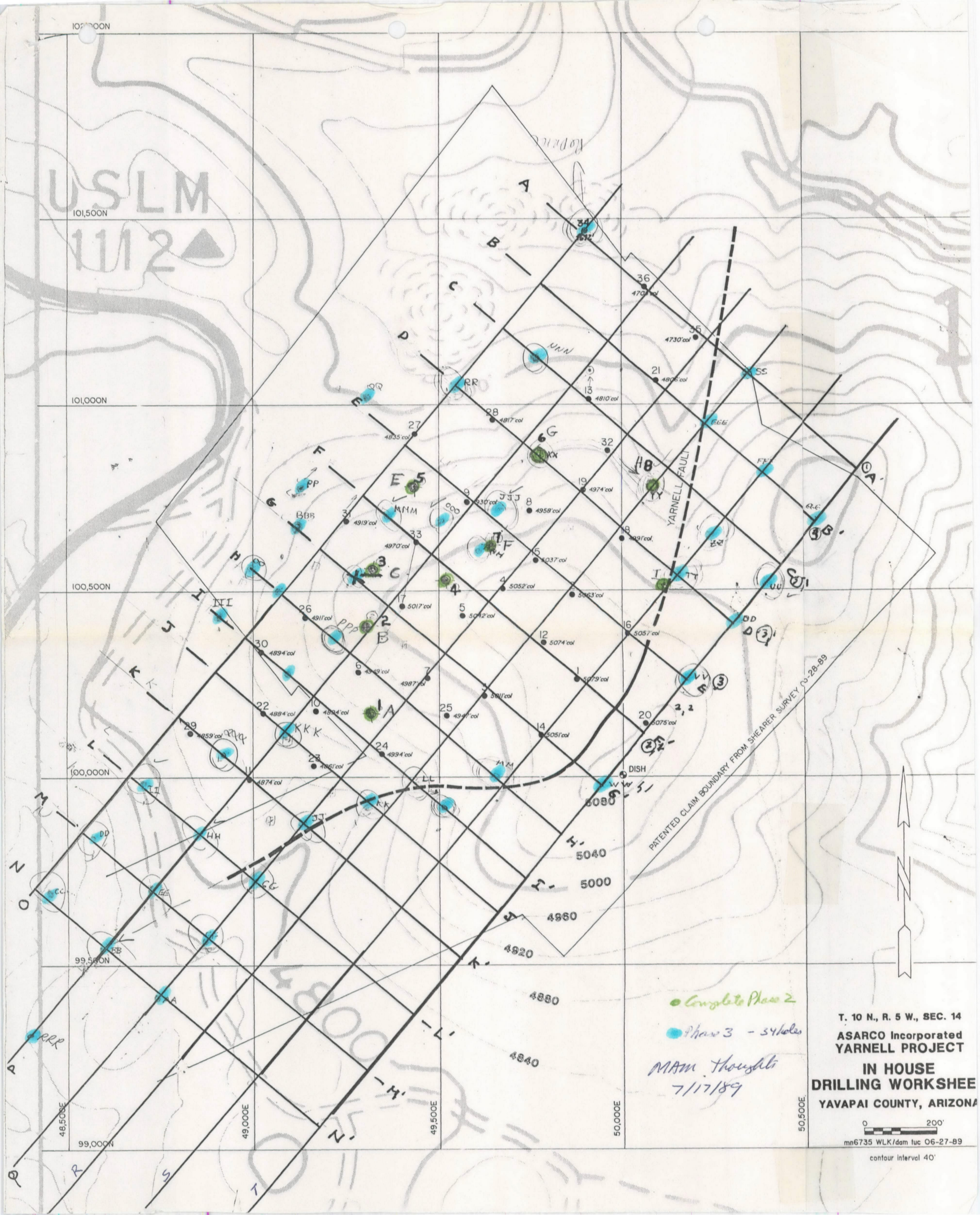
Bill Gay reports (7/17) that 5 drill sites are ready and the other 3 should be ready tomorrow.

Cheers.

J.D. Lee

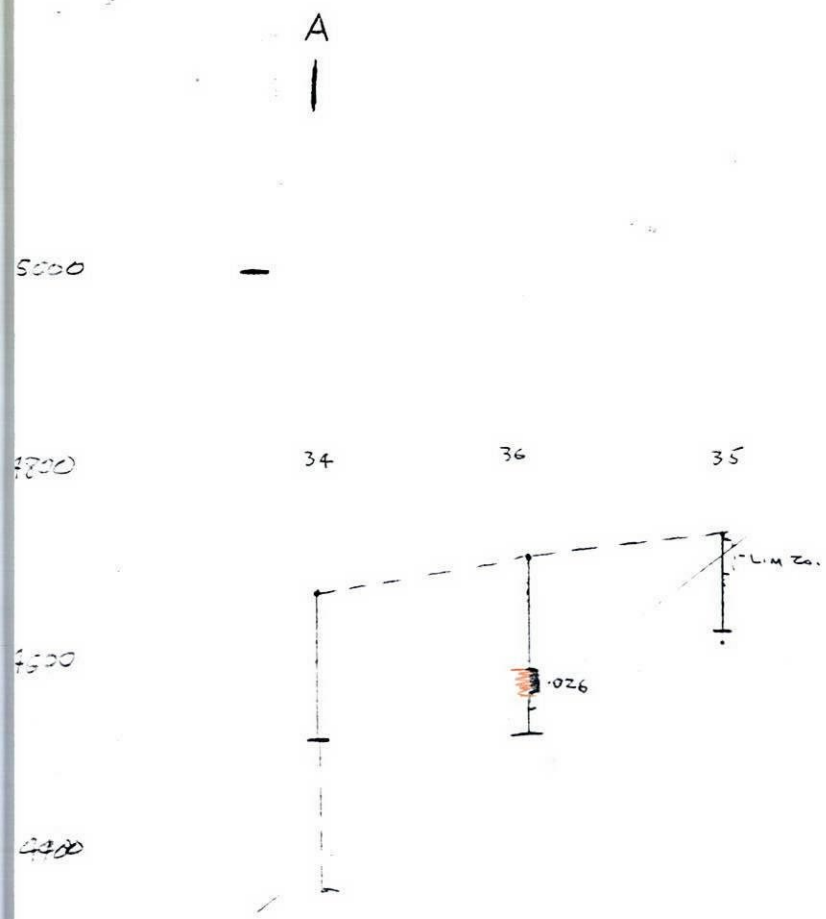
cc: W.L. Kurtz

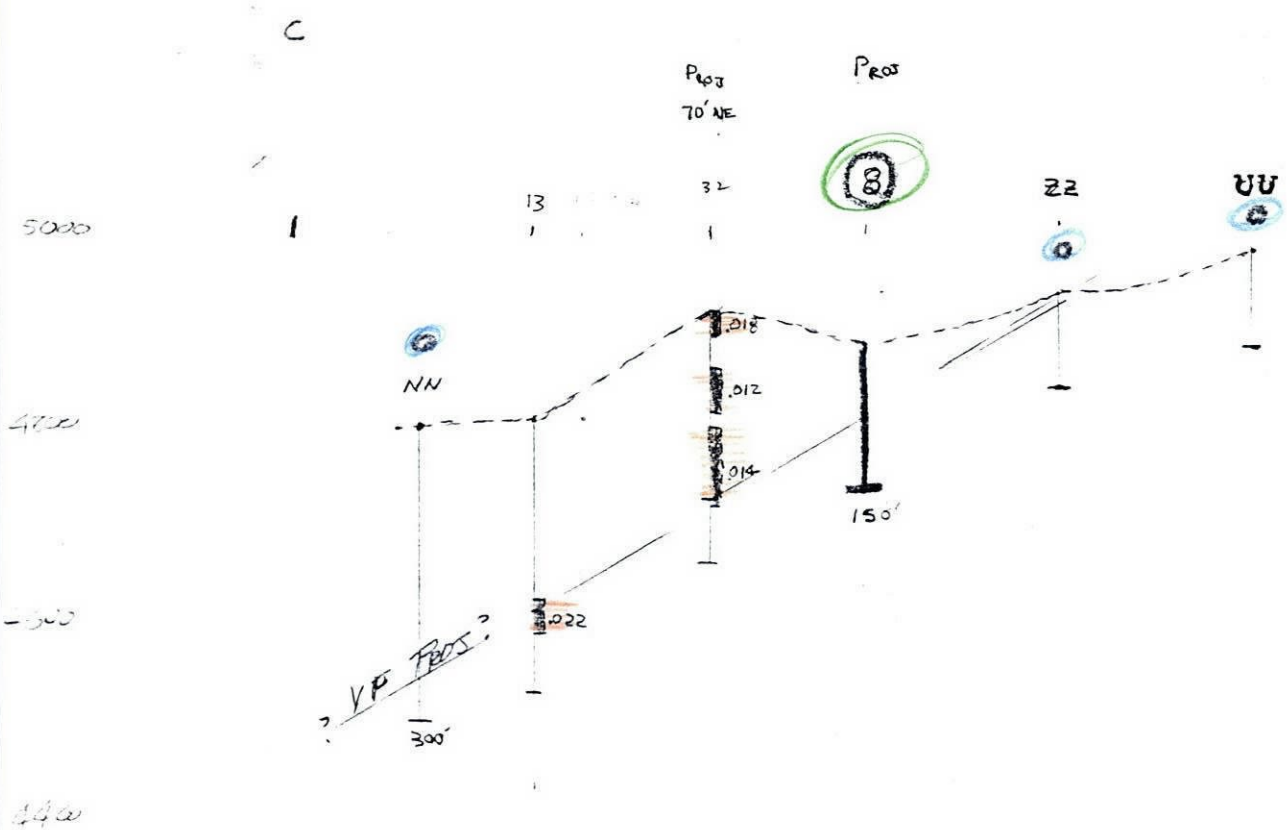

34
4672'col
36
4705'col
35
4730'col
13
4810'col
21
4806'col
4800'
28
4817'col
27
4835'col
32
4920'col
G
E
9
4930'col
19
4974'col
H
8
4958'col
31
4919'col
33
4970'col
F
18
4991'col
YARNELL FAULT
15
5037'col
C
D
4
5052'col
2
5063'col
17
5017'col
26
4911'col
5
5042'col
B
16
5057'col
30
4894'col
12
5074'col
6
4949'col
7
4987'col
1
5079'col
3
5011'col
A
22
4884'col
10
4894'col
25
4947'col
29
4859'col
14
5051'col
20
5075'col
24
4994'col
23
4861'col
11
4874'col
DISH
5080
PATENTED CLAIM BOU
5040
5000
4960
4920


USLM
1112
YARNELL FAULT
PATENTED CLAIM BOUNDARY FROM SHEARER SURVEY 10-28-89
DISH
5080
5040
5000
4960
4920
4880
4840
102,000N
101,500N
101,000N
100,500N
100,000N
99,500N
99,000N
48,500E
49,000E
49,500E
50,000E
50,500E
Complete Phase 2
Phase 3 - 34 holes
MAM thoughts
7/17/89
T. 10 N., R. 5 W., SEC. 14
ASARCO Incorporated
YARNELL PROJECT
IN HOUSE
DRILLING WORKSHEE
YAVAPAI COUNTY, ARIZONA
0 200'
mn6735 WLK/dam tuc 06-27-89
contour interval 40'

MAM Thoughts
7/17/89

Deepen - 100 RNC
34A 300'





8 - 150'

NN - 300'

ZZ 100'

UU 100'

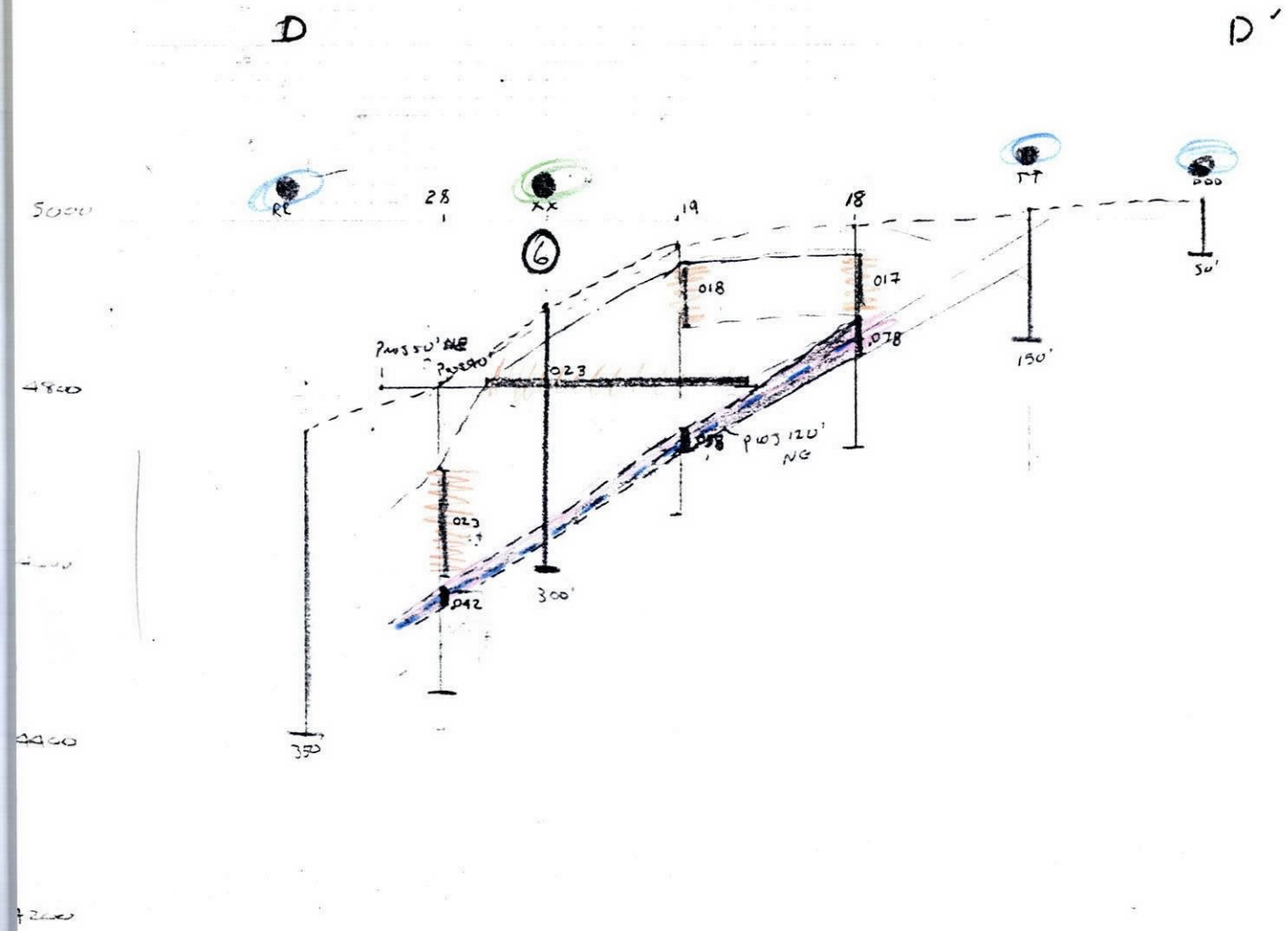
Proposed holes

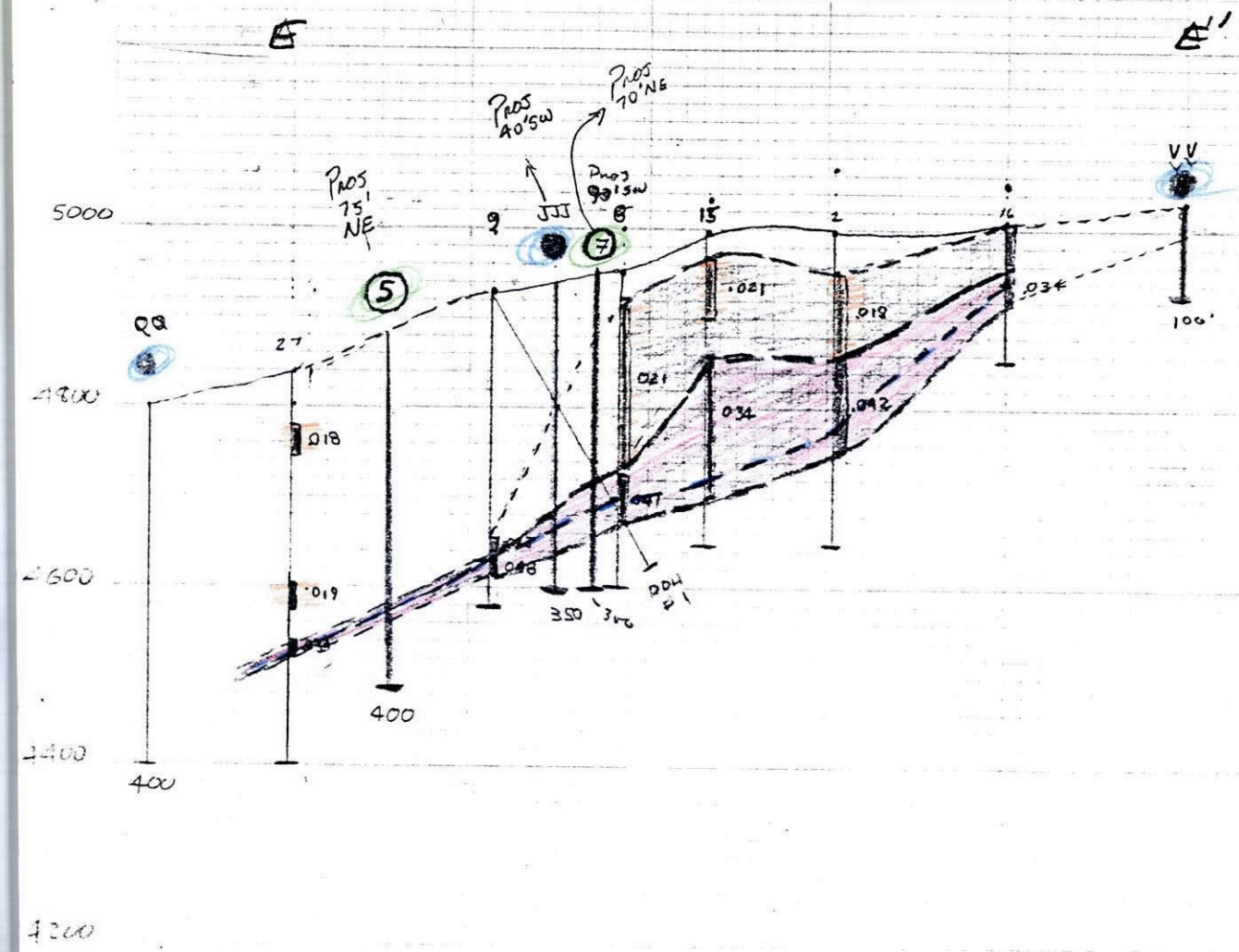
✓ II 150

(6) 300'+

DDD 50'

✓ RR 350'

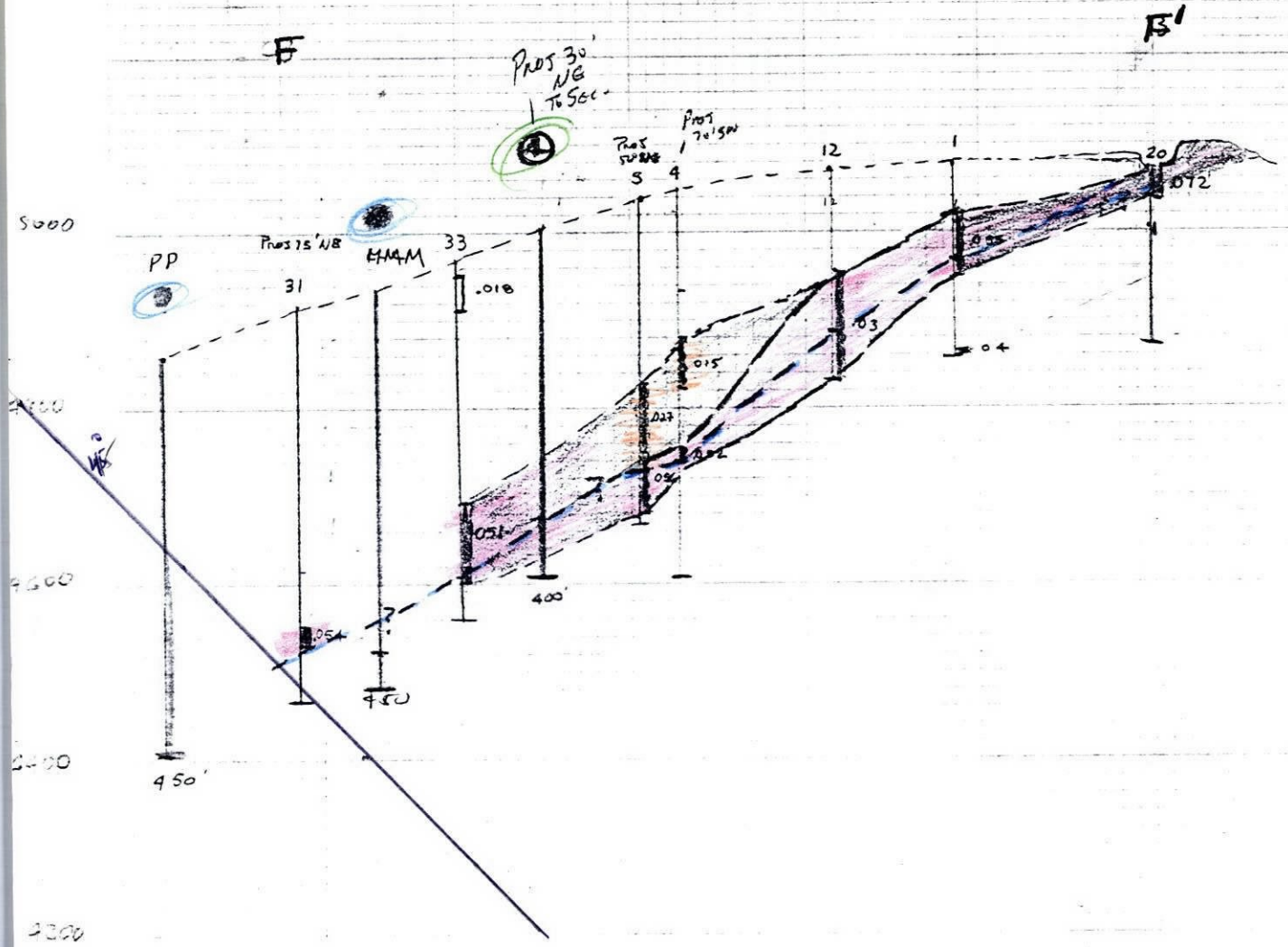




- Proposed holes -

QQ - 400'
JJJ 350
DDH-1 300'
S 50° E
VV 100'
(5) 400'
(7) 350'

B - B' 1" = 200'



Proposed Holes

4 ~~[illegible]~~ - 400'

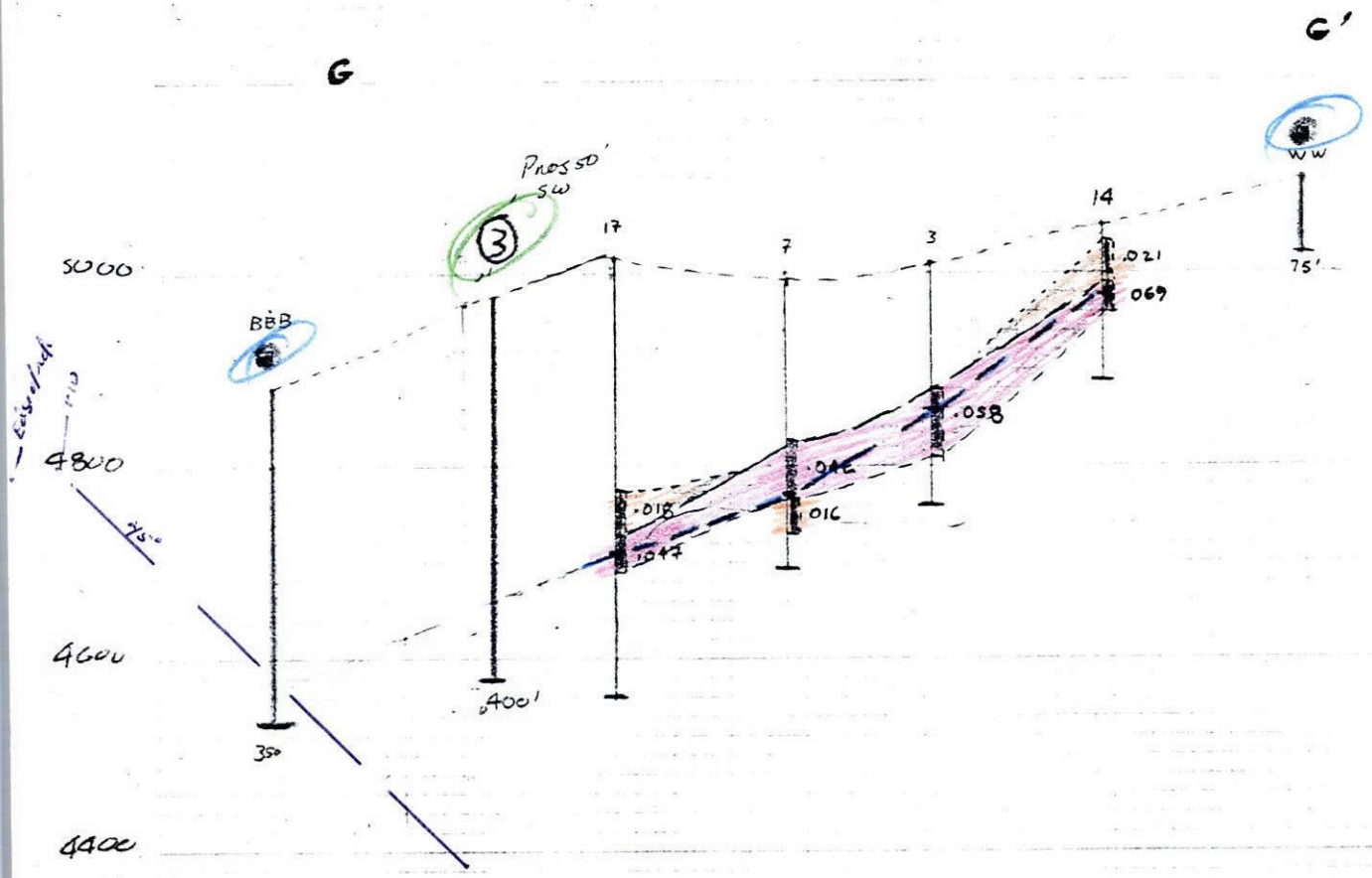
~~[illegible]~~

MMM 450

PP - 450'

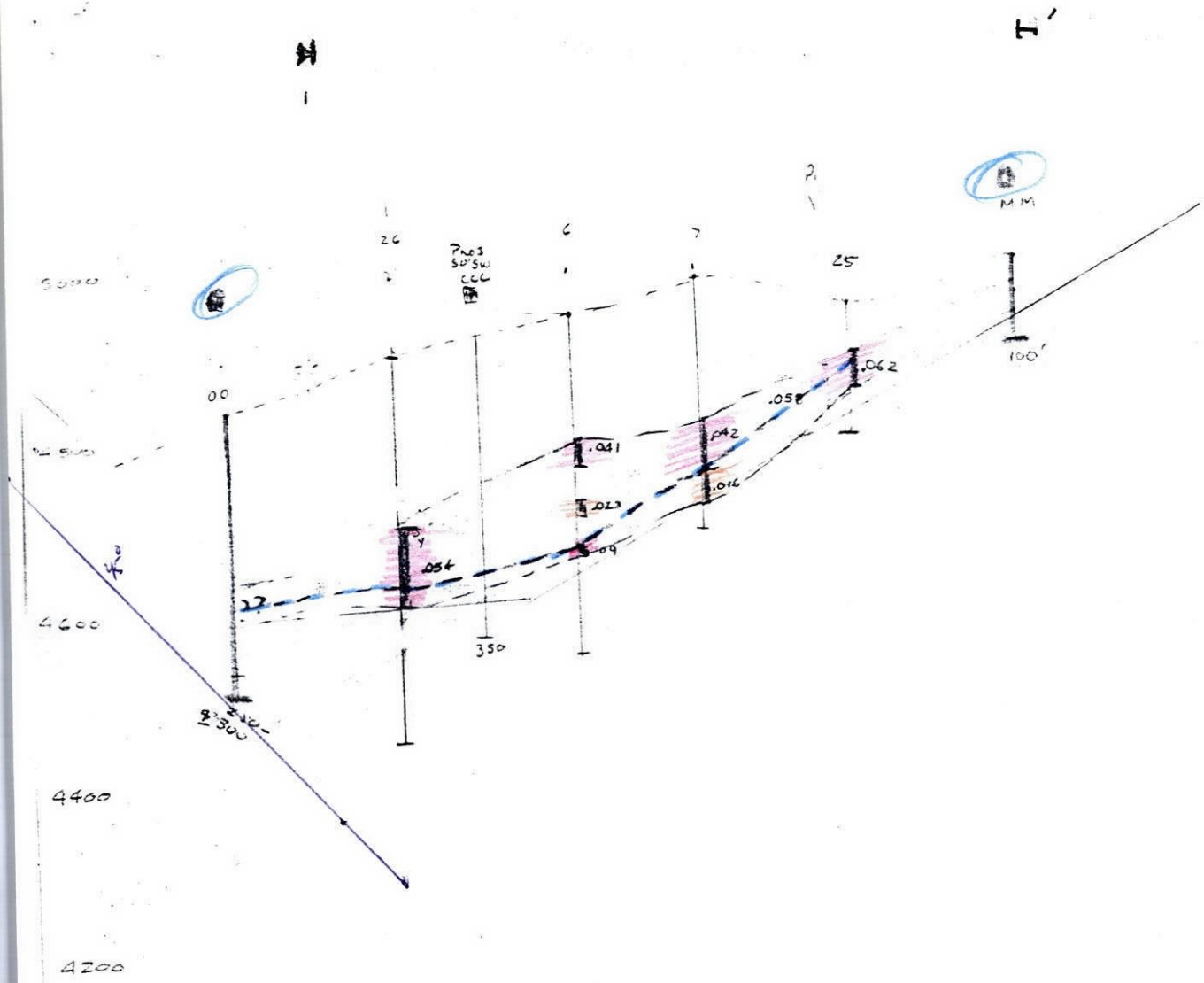
G-G' 1"=200' Looking NE

Proposed Holes
WW - 75'
~~WS 400~~
BBB 350
(3) 400'



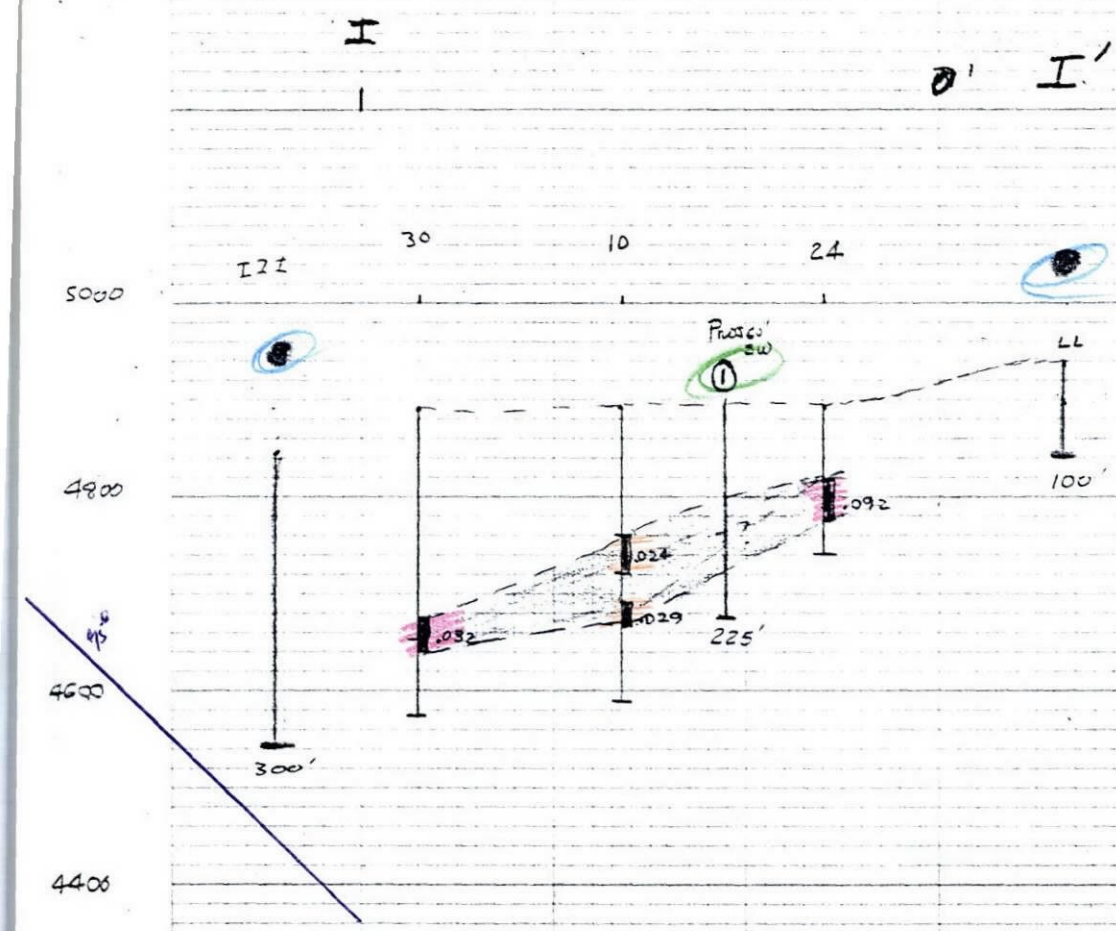
H-H' 1"=200 Lucky DG

Proposed Holes
OO - 300
MM 100
CCC 350



I-I' 1"=200'

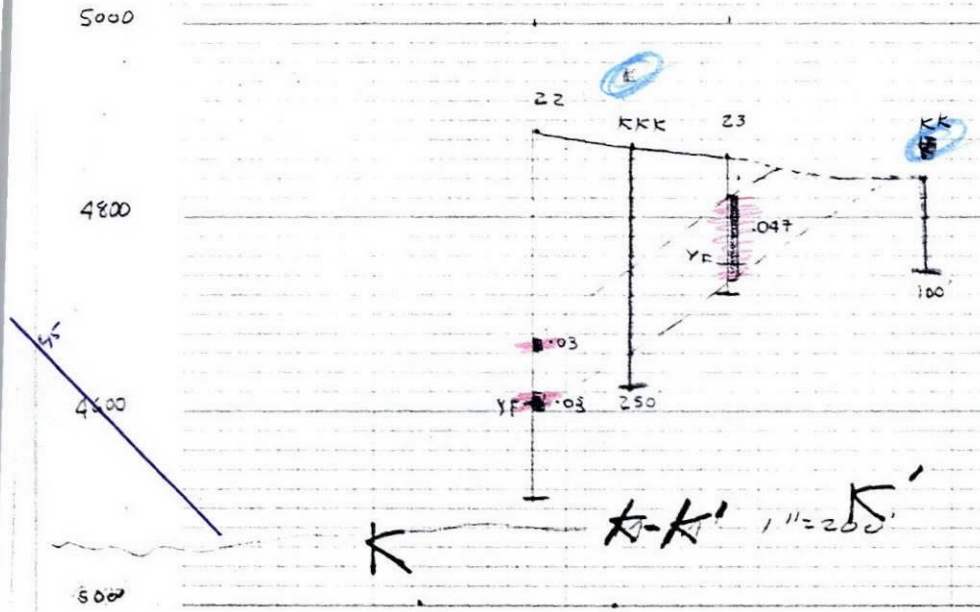
Proposed Holes
LL- 100'
III 300'

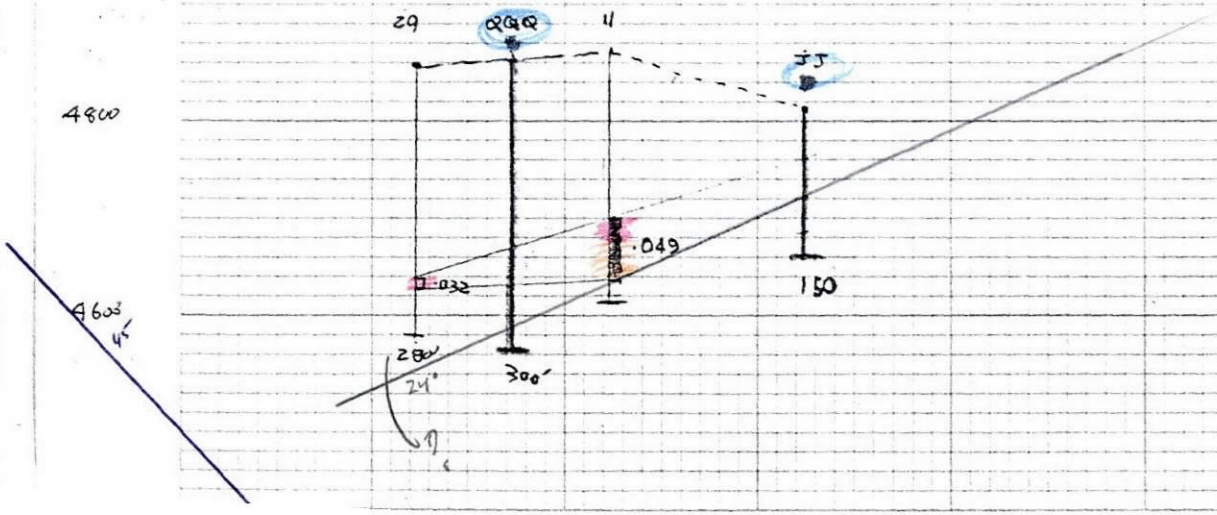


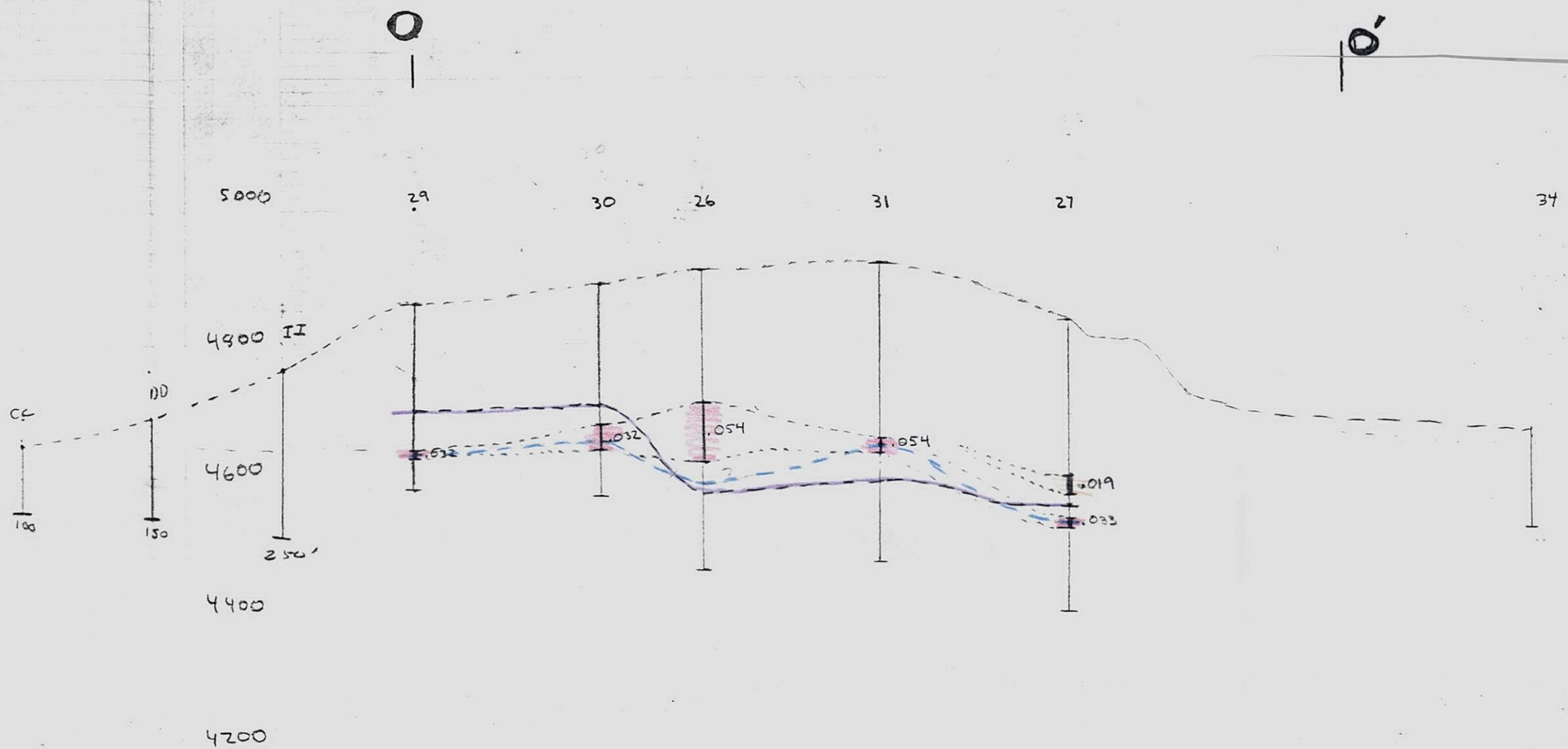
J - J'

J J'

Proposed Holes.
? KK- 100'
KKK 250'
JJ- 150'



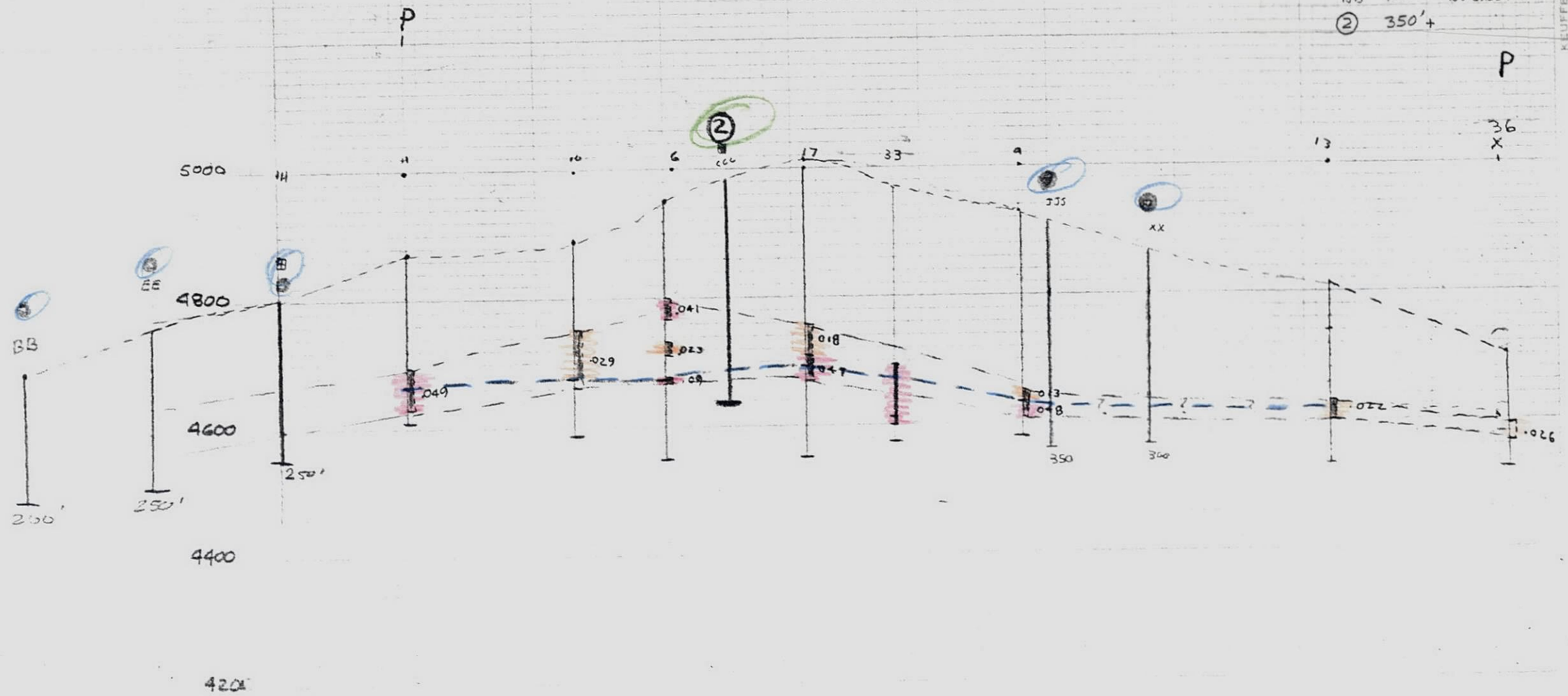


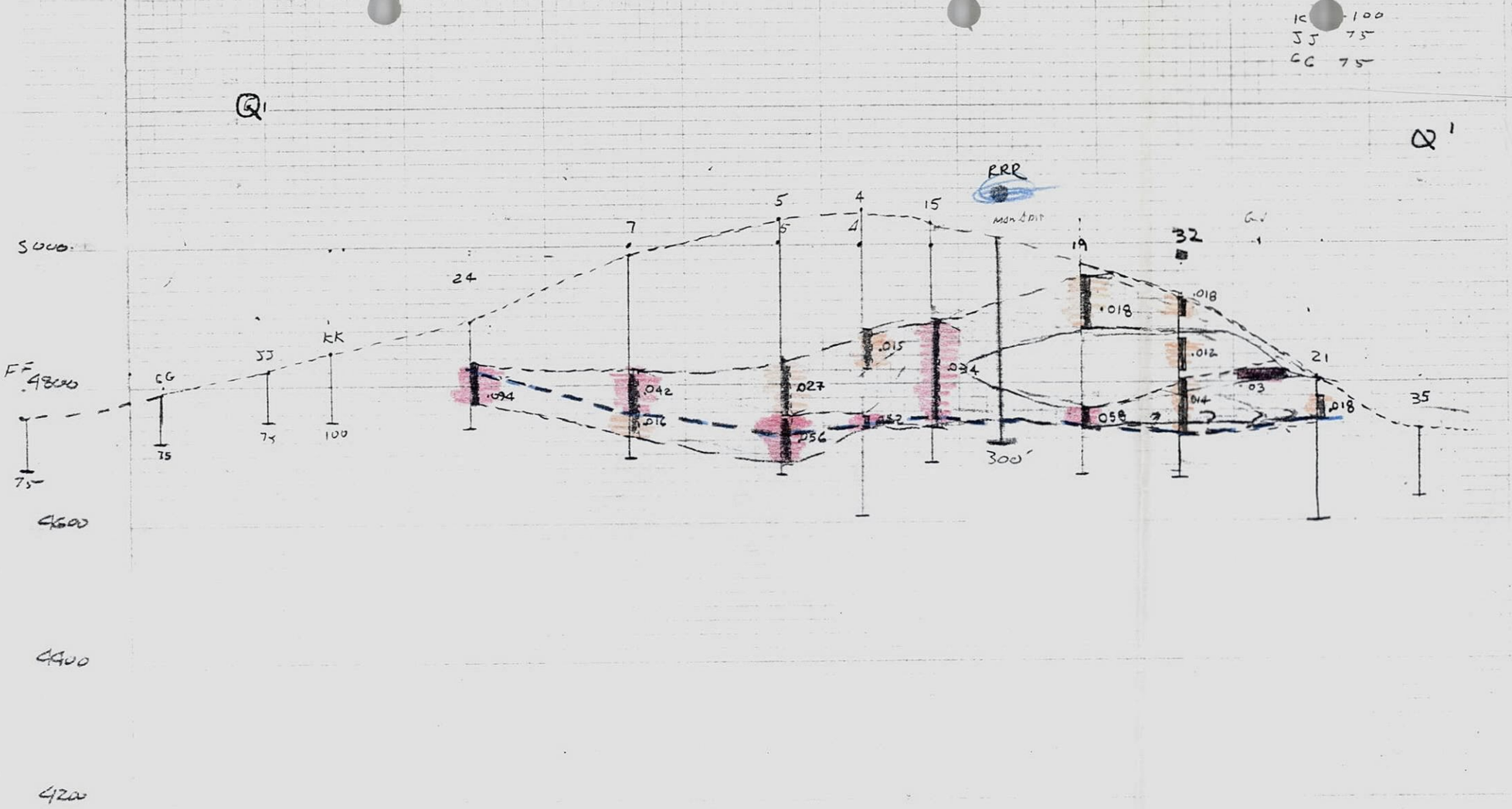


Yannelt
water table
> .03
< .03

Proposed Holes

HH 150'
EE 150' (Not on Section Too Short)
BB 100'
② 350'+



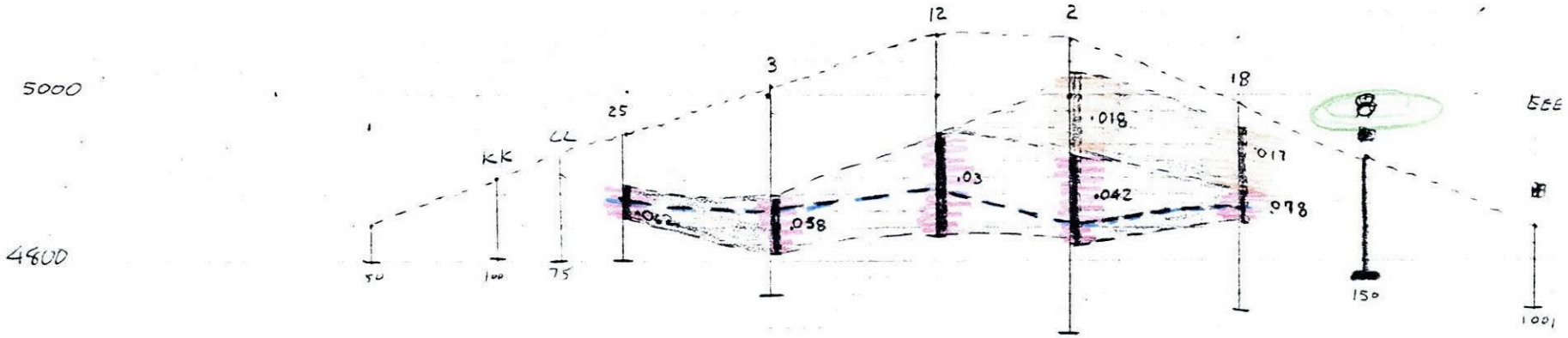

Q
Q'
RRR
5000
4800
4600
4400
4200
FF
CC
JJ
KK
24
7
5
4
15
19
32
21
35
300'
.094
.042
.016
.027
.056
.015
.034
.052
.018
.012
.014
.058
.03
.018

R-π'

YY = 150
EEE = 100

R
1

R

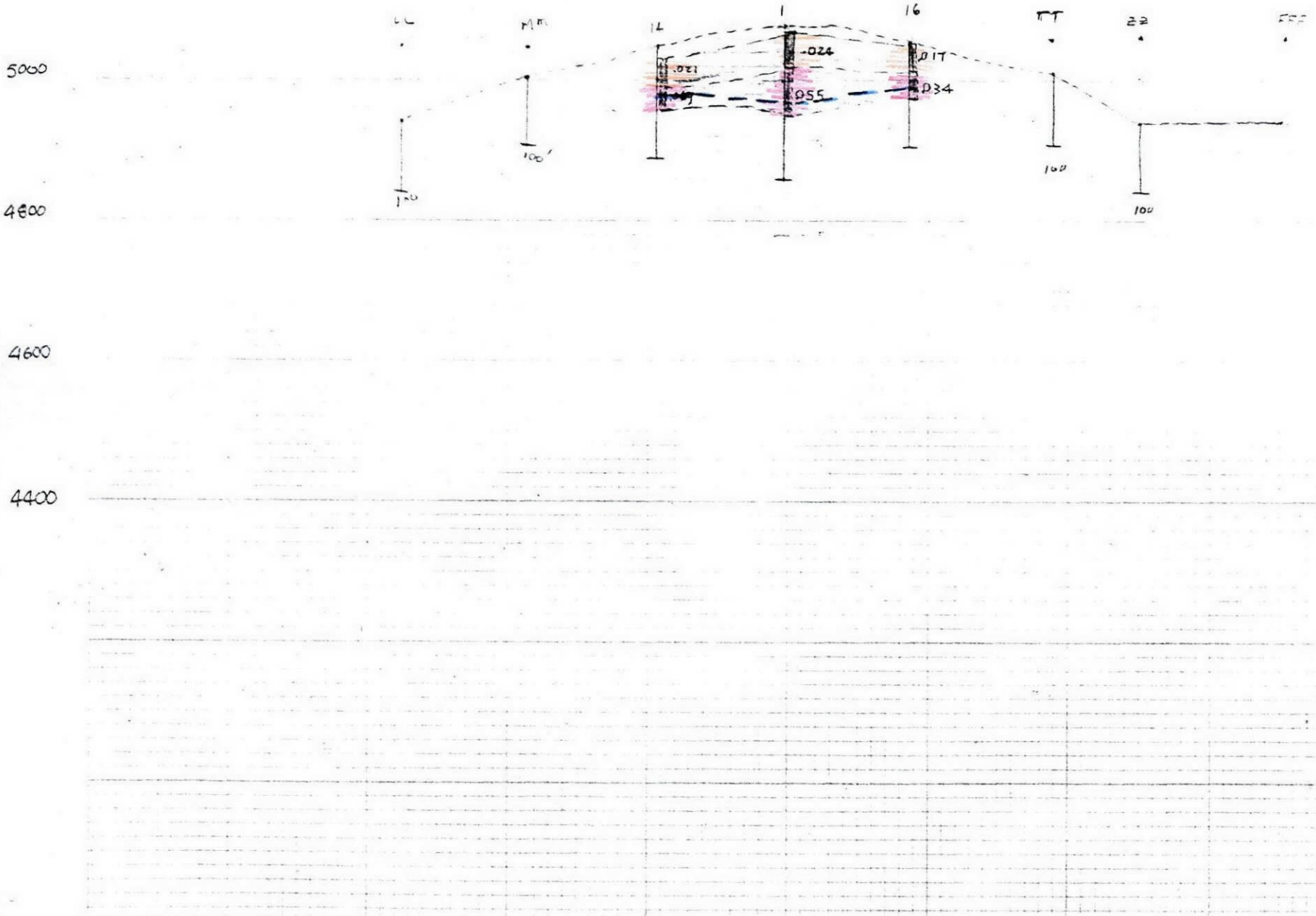


55'

MM - 100' ✓
LL - 100' ✓
TT - 100' ✓
ZZ 100'

5'

5'



Rec. 7/17

Memo to JD Sell
DrillHole Proposals
Phase 2 Continuaion, ~~Phase 3 program~~

Eight additional holes have been proposed and discussed with you for the completion of the 10,000' Phase 2 drilling program at Yarnell. We have drilled to date in the (phase 2 program) 7,345' in 25 holes (10-36).
Proposed holes 1-8 (2600') are designed to test areas within the main ore zone where there is some problem with continuity of thickness and/or grade of the zone. These holes will not test ore zone extensions. The proposed holes are shown in green on the attached plan and sections.

The present appropiation of $250,000 will cover the cost of the completion of the Phase 2 program. A cost estimate is attached.
TOGETHER w/ EXPENDITURES TO DATE

Additional holes shown in blue on the attached plan and sections are designed to test for extensions both up dip and along strike of the deposit. and some fill in around problem drill holes. Total proposed footage for this phase is 7500' in 34 drill holes for a total of $134,200. A Cost estimate is attached for a phase three program.

ok
Type

Copies RLB WLK Skidmore
FTG Sell Angalone

cc: J Malone - just sections

→ MAM

	1ST PRIORITY.
1	225'
2	350'
3	400'
4	400'
5	400'
6	300'
7	350'
8	150'

TOTAL FOOTAGE = 2600'

copy MMM Note

return to → MMM

Completion of PHASE 2 PROGRAM

2600'

✓ Drilling	2650'	24,500
✓ Assay Costs	@ $3/ft	8000
✓ Supplies (Bags, Trays etc)		~800
✓ ~~Living Exp~~ Living Expense		1000
✓ Vehicle Exp Vehicle Expense		1500
✓ Site Prep.	9 sites @ 300/site	2700
✓ ~~Supervision~~	MAM, JJM, SPD, WDG 3K 2 TOTAL	2000 ~~8,500~~
	w/ 10% Contingency	Total ~~42,500~~ 45,500 50,000

Additional Costs – ~~[illegible]~~ to be incurred.

Open Pit Mol Study	
Bussy – Lossing Transport – 6 TD Staff	5000
Testing Metallurgical [illegible]	20,000

$65,000

→ MAM

PHASE 2 PROGRAM

ESTIMATED EXPENDITURES to 1/15/89.

1	DRILLING (7395'	66472.
2	SITE PREP (INCLUDES OPEN CUT CLEAN UP.	9825.00
3	ASSAYING	20,000
4	AERIAL SURVEYING + MAPPING	15,000
5	HOLE SURVEYING + CLAIM SURVEYING	5,000
6	LAND PAYMENTS (NORGOLD)	15,000
	" " WESTERN BUILDING (THRU SEPT)	5000
7	SUPERVISION-	
	GEOLOGIST. (PROJECT)	13599 + AEG
	GEOLOGIST TEMP	
	LABORER	1893.13
	OVERHEAD	4215.00
8	LEGAL	10,000
9	LIVING EXP.	1200.00
10	VEHICLE EXP.	2000
11	SUPPLIES	1000
12	MET TESTING	1500
		171,704
	EXPENDED TO DATE	$177,767
	BALANCE FROM →	250,000
		$72,233

JDS

ASARCO

Southwestern Exploration Division

July 17, 1989

L.J. Jansen

Histograms
Yarnell Project
Yavapai County, AZ

I request that you put together a new histogram of Yarnell Holes 10 thru 36. Use the same format that you used for Holes 1 thru 9, so that an overlay comparison can be made.

Supply copies of both 1-9 and 10-36 for distribution.

Thank you.

James D. Sell

James D. Sell

JDS:mek

cc: W.L. Kurtz

JDS

7/17

FROM: W. L. KURTZ

TO: JD Sell

Malartic purchase of Cogass: see p. 4A

If they build mill other veins within trucking distance take on potential.

Jesus — Miller was supposed to have done this after we gave him two helpers + Bill Gray!! Mark needs to learn how to use his time!
TIME!

Please take head — we have talked about this, written memo's, etc. what more can I do other than hiring some one to handle Yarnell so you can get on with Exploration?!

cc: WL Kurtz
Yarnell file

Put together 50 hole program
at [illegible] of 302 Tu

Lou
another histogram of gamma
assays.
1. holes 1 thru 9
2 holes 10 – 36

ASARCO

Exploration Department
Western USA

JDS

July 17, 1989

J.D. Sell
Tucson Office

Assay Check
Re: Miller 7/13/89

I have made my own comparison list by grade range and find that Miller's statement: "...the greatest majority..." is not correct. Also, there are a few other "notable" exceptions. Looks like Miller should either take 100% vacation or stay 100% at work, but not try to do both.

yes, indeed!

WLK:mek

W. L. Kurtz

cc: M.A. Miller

ASARCO

Exploration Department
Western USA

JDS

July 17, 1989

J.D. Sell
Tucson Office

Mark Miller

Remember Miller is not supposed to send copies of his memos to anyone unless so instructed by you. I assume the copies of his Assay Check memo were requested by you.

WLK:mek

W. L. Kurtz

cc: M.A. Miller

ASARCO

Southwestern Mining Department

July 18, 1989

TO: J. D. Sell

RE: Transfer of Drill Hole Frequency Diagrams

This will transfer three sets of drill hole frequency diagrams for holes:

YM 1 to YM- 9,
YM-10 to YM-36,
YM- 1 to YM-36.

Each set consists of a diagram labeled:

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	NUMBER	PCT

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	SUM ASSAY	PCT

Each set is preceded by two pages of introductory material generated by the computer program. This material details the file name, conditions and size of each category. The first diagram in each set shows the number of samples in each category and the percent of total. The second diagram shows the sum of the gold assays in each category and the percent of total. Since the assay intervals are all five feet long this second diagram is essentially the ounces of gold in each category.

L. J. Jansen

LJJ/mck
encl.

cc: RL Brown
WL Kurtz
MA Mullen
FILE

ASARCO Incorporated
JUL 18 1989
SW Exploration

```
 START_SECTION   HISTOGRAM
 HISTOGRAM                 12

*********************************************************
*                                                       *
*                                                       *
*                 18-JUL-89       08:17:13    MST       *
*                     ITEM  0                           *
*                                                       *
*                                                       *
*********************************************************

FILE M $1$DUA2:[PROJECT.YARNELL]PLOT2.DAT;1
FILE L $1$DUA2:[PROJECT.YARNELL]PLOT14.DAT;1
```

---------- FILE M ----------					---------- FILE L ----------				
LINE	NAME	FIELDS	FROM	TO	LINE	NAME	FIELDS	FROM	TO
1	dril	-12	1	1	1	DRIL	-12	1	31
2	PRE	-10	2	3	2	FLA	-12	32	104
3	-999	-7	4	234	3	HEAD	-5	105	105
4	-999	-4	235	360	4	DRIL	-12	106	136
5	COMB	-12	361	464	5	FLA	-12	137	209
6	ADD	-12	465	569	6	HEAD	-5	210	210
7	SURV	-5	570	571	7	-999	-12	211	333
8		0	0	0	8	DOWN	-12	334	456

```
 LOCATE FILE - ALL FIELDS MUST BE DEC., ELSE NEW FILE

Entered:         4

LOCATED /DRIL/ IN FILE (L) WITH   12 FIELDS

/DRIL/ ASSAY DATA FOR YARNELL DRILL HOLES 1-9

 TOUCH FIELD(S) TO HISTOGRAM   /  TO END -------------

Entered:   12
  1) PLOT ANY VALUE IN FIELD > 0
  9) PLOT ANY VALUE IN FIELD .NE. 0
  2) USE LOWER LIMIT AS FLOOR ( USE NO. 3 ALSO )
  3) PLOT VALUE IF ANOTHER/SAME FIELD IS WITHIN LIMITS
  7) PLOT VALUES WITHIN +/- TWO STD DEVIATIONS OF MEAN
  4) FOR ROCK/MINERAL CODES
  5) FOR BENCHES (FROM/TO BY INCREMENT)
  6) FOR BENCHES (YOU SELECT)
  8) SET COORDINATE LIMITS
 10) SKIP COORDINATE LIMIT CHECK

 TOUCH HISTOGRAM OPTION(S)    /  TO END ----------------
```

```
Entered:    1
MAX/MIN Y Y X X Z Z
 -99999999 100000000 -99999999 100000000 -99999999 100000000
KEY IN CI FOR EACH FIELD - ZEROS IF UNKNOWN
.005
MAX/MIN Y X Z Y X Z
 -99999999 -99999999 -99999999 100000000 100000000 100000000
NUMBER OF SECTIONS =         1
```

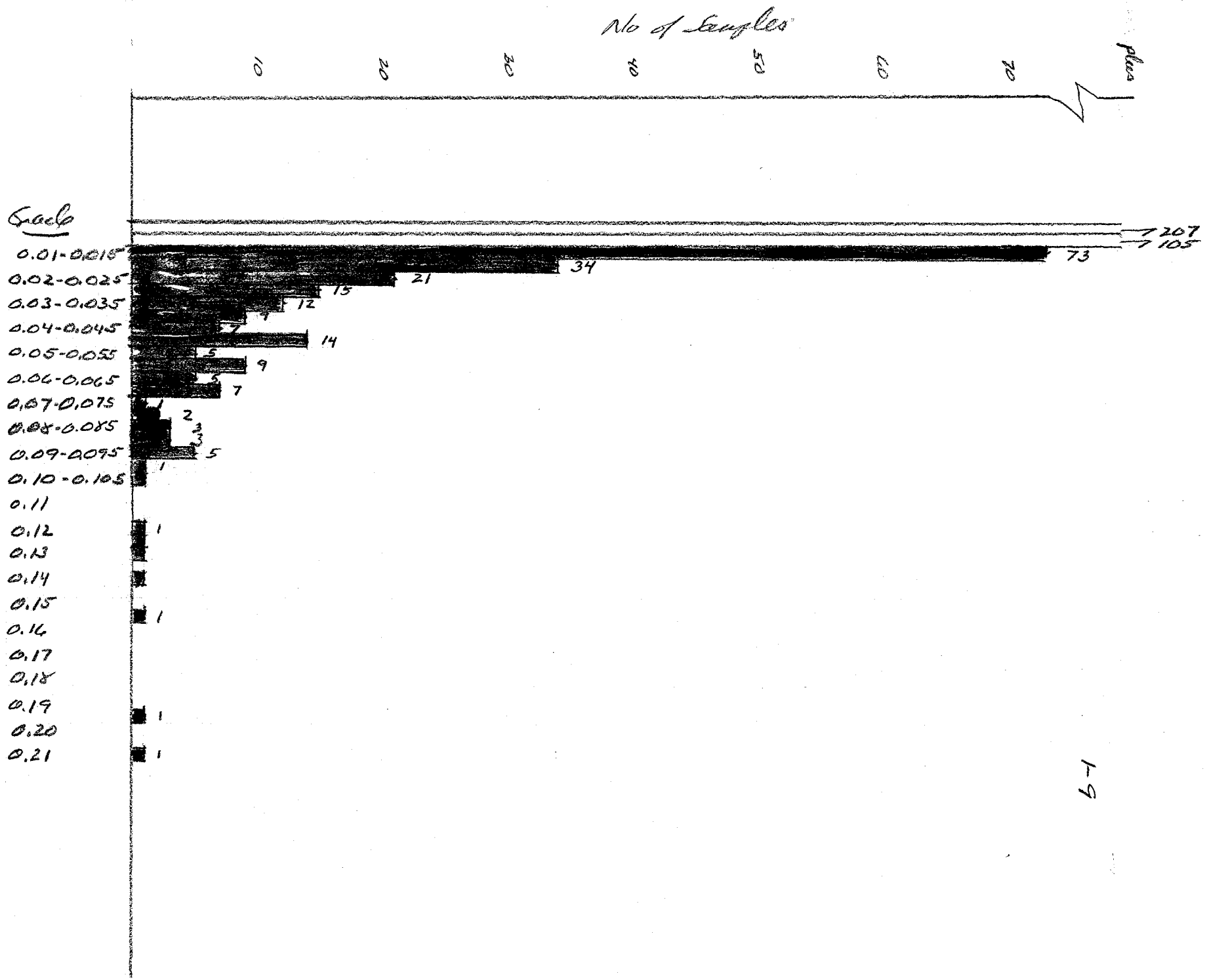
/DRIL/ ASSAY DATA FOR YARNELL DRILL HOLES 1-9

PLOT FIELD 12

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	NUMBER	PCT	
0.000	0.005	207.	37.91	**********
0.005	0.010	105.	19.23	**********
0.010	0.015	73.	13.37	**********
0.015	0.020	34.	6.23	****
0.020	0.025	21.	3.85	***
0.025	0.030	15.	2.75	**
0.030	0.035	12.	2.20	*
0.035	0.040	9.	1.65	*
0.040	0.045	7.	1.28	*
0.045	0.050	14.	2.56	**
0.050	0.055	5.	0.92	
0.055	0.060	9.	1.65	*
0.060	0.065	5.	0.92	
0.065	0.070	7.	1.28	*
0.070	0.075	1.	0.18	
0.075	0.080	2.	0.37	
0.080	0.085	3.	0.55	
0.085	0.090	3.	0.55	
0.090	0.095	5.	0.92	
0.095	0.100	1.	0.18	
0.100	0.105	1.	0.18	
0.120	0.125	1.	0.18	
0.125	0.130	1.	0.18	
0.130	0.135	1.	0.18	
0.140	0.145	1.	0.18	
0.155	0.160	1.	0.18	
0.195	0.200	1.	0.18	
0.210	0.215	1.	0.18	

546.000 Number of samples


No of Samples
10
20
30
40
50
60
70
plus
Grade
0.01-0.015
0.02-0.025
0.03-0.035
0.04-0.045
0.05-0.055
0.06-0.065
0.07-0.075
0.08-0.085
0.09-0.095
0.10-0.105
0.11
0.12
0.13
0.14
0.15
0.16
0.17
0.18
0.19
0.20
0.21
207
105
73
34
21
15
12
14
9
7
2
5
1

/DRIL/ ASSAY DATA FOR YARNELL DRILL HOLES 1-9

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	SUM ASSAY	PCT	
0.000	0.005	0.527	5.73	**********
0.005	0.010	0.684	7.44	**********
0.010	0.015	0.852	9.27	**********
0.015	0.020	0.567	6.17	**********
0.020	0.025	0.463	5.04	**********
0.025	0.030	0.406	4.42	**********
0.030	0.035	0.393	4.28	**********
0.035	0.040	0.329	3.58	**********
0.040	0.045	0.297	3.23	**********
0.045	0.050	0.657	7.15	**********
0.050	0.055	0.260	2.83	*********
0.055	0.060	0.504	5.48	**********
0.060	0.065	0.309	3.36	**********
0.065	0.070	0.468	5.09	**********
0.070	0.075	0.073	0.79	**
0.075	0.080	0.152	1.65	*****
0.080	0.085	0.244	2.66	********
0.085	0.090	0.259	2.82	*********
0.090	0.095	0.458	4.98	**********
0.095	0.100	0.097	1.06	***
0.100	0.105	0.101	1.10	***
0.120	0.125	0.124	1.35	****
0.125	0.130	0.129	1.40	****
0.130	0.135	0.132	1.44	****
0.140	0.145	0.142	1.55	*****
0.155	0.160	0.156	1.70	*****
0.195	0.200	0.195	2.12	******
0.210	0.215	0.212	2.31	*******
		9.190		

546.000	Number of samples
0.017	Mean
0.025	Standard Deviation

```
 START_SECTION   HISTOGRAM
 HISTOGRAM                 12

*************************************************************
*                                                           *
*                                                           *
*                 18-JUL-89       08:18:48    MST           *
*                     ITEM  0                               *
*                                                           *
*                                                           *
*************************************************************

FILE M $1$DUA2:[PROJECT.YARNELL]PLOT2.DAT;1
FILE L $1$DUA2:[PROJECT.YARNELL]PLOT14.DAT;1
```

---------- FILE M ----------					---------- FILE L ----------				
LINE	NAME	FIELDS	FROM	TO	LINE	NAME	FIELDS	FROM	TO
1	dri1	-12	1	1	1	DRIL	-12	1	31
2	PRE	-10	2	3	2	FLA	-12	32	104
3	-999	-7	4	234	3	HEAD	-5	105	105
4	-999	-4	235	360	4	DRIL	-12	106	136
5	COMB	-12	361	464	5	FLA	-12	137	209
6	ADD	-12	465	569	6	HEAD	-5	210	210
7	SURV	-5	570	571	7	-999	-12	211	333
8		0	0	0	8	DOWN	-12	334	456

```
 LOCATE FILE - ALL FIELDS MUST BE DEC., ELSE NEW FILE

Entered:         5

LOCATED /FLA / IN FILE (L) WITH   12 FIELDS

/FLA / Assay data on floppy for YM-10 to YM-36

 TOUCH FIELD(S) TO HISTOGRAM   /  TO END -------------

Entered:   12
  1) PLOT ANY VALUE IN FIELD > 0
  9) PLOT ANY VALUE IN FIELD .NE. 0
  2) USE LOWER LIMIT AS FLOOR ( USE NO. 3 ALSO )
  3) PLOT VALUE IF ANOTHER/SAME FIELD IS WITHIN LIMITS
  7) PLOT VALUES WITHIN +/- TWO STD DEVIATIONS OF MEAN
  4) FOR ROCK/MINERAL CODES
  5) FOR BENCHES (FROM/TO BY INCREMENT)
  6) FOR BENCHES (YOU SELECT)
  8) SET COORDINATE LIMITS
 10) SKIP COORDINATE LIMIT CHECK

 TOUCH HISTOGRAM OPTION(S)    /  TO END ----------------
```

```
Entered:    1
MAX/MIN Y Y X X Z Z
 -99999999 100000000 -99999999 100000000 -99999999 100000000
KEY IN CI FOR EACH FIELD - ZEROS IF UNKNOWN
.005
MAX/MIN Y X Z Y X Z
 -99999999 -99999999 -99999999 100000000 100000000 100000000
NUMBER OF SECTIONS =         1
```

/FLA / Assay data on floppy for YM-10 to YM-36

PLOT FIELD 12

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	NUMBER	PCT	
0.000	0.005	792.	55.08	**********
0.005	0.010	234.	16.27	********
0.010	0.015	94.	6.54	***
0.015	0.020	67.	4.66	**
0.020	0.025	56.	3.89	**
0.025	0.030	35.	2.43	*
0.030	0.035	27.	1.88	*
0.035	0.040	23.	1.60	
0.040	0.045	15.	1.04	
0.045	0.050	14.	0.97	
0.050	0.055	6.	0.42	
0.055	0.060	6.	0.42	
0.060	0.065	9.	0.63	
0.065	0.070	8.	0.56	
0.070	0.075	6.	0.42	
0.075	0.080	4.	0.28	
0.080	0.085	5.	0.35	
0.085	0.090	5.	0.35	
0.090	0.095	5.	0.35	
0.095	0.100	6.	0.42	
0.100	0.105	4.	0.28	
0.110	0.115	3.	0.21	
0.115	0.120	2.	0.14	
0.120	0.125	1.	0.07	
0.130	0.135	2.	0.14	
0.135	0.140	1.	0.07	
0.145	0.150	2.	0.14	
0.160	0.165	1.	0.07	
0.180	0.185	1.	0.07	
0.225	0.230	1.	0.07	
0.295	0.300	1.	0.07	
0.330	0.335	1.	0.07	
0.625	0.630	1.	0.07	

1438.000 Number of samples

/FLA / Assay data on floppy for YM-10 to YM-36

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	SUM ASSAY	PCT	
0.000	0.005	1.593	8.57	**********
0.005	0.010	1.545	8.31	**********
0.010	0.015	1.123	6.04	**********
0.015	0.020	1.140	6.13	**********
0.020	0.025	1.221	6.57	**********
0.025	0.030	0.948	5.10	**********
0.030	0.035	0.863	4.64	**********
0.035	0.040	0.851	4.58	**********
0.040	0.045	0.624	3.36	**********
0.045	0.050	0.662	3.56	**********
0.050	0.055	0.315	1.69	*****
0.055	0.060	0.348	1.87	******
0.060	0.065	0.554	2.98	**********
0.065	0.070	0.535	2.88	**********
0.070	0.075	0.441	2.37	********
0.075	0.080	0.308	1.66	*****
0.080	0.085	0.409	2.20	*******
0.085	0.090	0.439	2.36	********
0.090	0.095	0.465	2.50	********
0.095	0.100	0.581	3.13	**********
0.100	0.105	0.407	2.19	*******
0.110	0.115	0.337	1.81	******
0.115	0.120	0.234	1.26	****
0.120	0.125	0.121	0.65	**
0.130	0.135	0.266	1.43	*****
0.135	0.140	0.136	0.73	**
0.145	0.150	0.295	1.59	*****
0.160	0.165	0.161	0.87	***
0.180	0.185	0.183	0.98	***
0.225	0.230	0.229	1.23	****
0.295	0.300	0.297	1.60	*****
0.330	0.335	0.331	1.78	******
0.625	0.630	0.628	3.38	**********
		18.590		

1438.000	Number of samples
0.013	Mean
0.029	Standard Deviation

```
  HISTOGRAM                 12

*************************************************************
*                                                           *
*                                                           *
*                 18-JUL-89       08:42:43    MST           *
*                     ITEM  0                               *
*                                                           *
*                                                           *
*************************************************************

FILE M $1$DUA2:[PROJECT.YARNELL]PLOT2.DAT;1
FILE L $1$DUA2:[PROJECT.YARNELL]PLOT14.DAT;1

---------- FILE  M -----------   ---------- FILE  L -----------

LINE  NAME  FIELDS   FROM   TO   LINE  NAME  FIELDS   FROM   TO

   1  dril     -12      1    1      1  DRIL     -12      1   31
   2  PRE      -10      2    3      2  FLA      -12     32  104
   3  -999      -7      4  234      3  HEAD      -5    105  105
   4  -999      -4    235  360      4  DRIL     -12    106  136
   5  COMB     -12    361  464      5  FLA      -12    137  209
   6  ADD      -12    465  569      6  HEAD      -5    210  210
   7  SURV      -5    570  571      7  -999     -12    211  333
   8             0      0    0      8  DOWN     -12    334  456


 LOCATE FILE - ALL FIELDS MUST BE DEC., ELSE NEW FILE


Entered:         6

LOCATED /ADD / IN FILE (M) WITH   12 FIELDS

/ADD / COMBINED YM-1 TO YM-36 WITH MISSING INTERVALS ADDED FOR YM-26


 TOUCH FIELD(S) TO HISTOGRAM   /  TO END -------------


Entered:   12
  1) PLOT ANY VALUE IN FIELD > 0
  9) PLOT ANY VALUE IN FIELD .NE. 0
  2) USE LOWER LIMIT AS FLOOR ( USE NO. 3 ALSO )
  3) PLOT VALUE IF ANOTHER/SAME FIELD IS WITHIN LIMITS
  7) PLOT VALUES WITHIN +/- TWO STD DEVIATIONS OF MEAN
  4) FOR ROCK/MINERAL CODES
  5) FOR BENCHES (FROM/TO BY INCREMENT)
  6) FOR BENCHES (YOU SELECT)
  8) SET COORDINATE LIMITS
 10) SKIP COORDINATE LIMIT CHECK


 TOUCH HISTOGRAM OPTION(S)    /  TO END ----------------


Entered:    1
```

```
MAX/MIN Y Y X X Z Z
    101469     99998     50200     48832      5079      4671
KEY IN CI FOR EACH FIELD - ZEROS IF UNKNOWN
.005
MAX/MIN Y X Z Y X Z
    101469     50200      5079     99998     48832      4671
NUMBER OF SECTIONS =         1
```

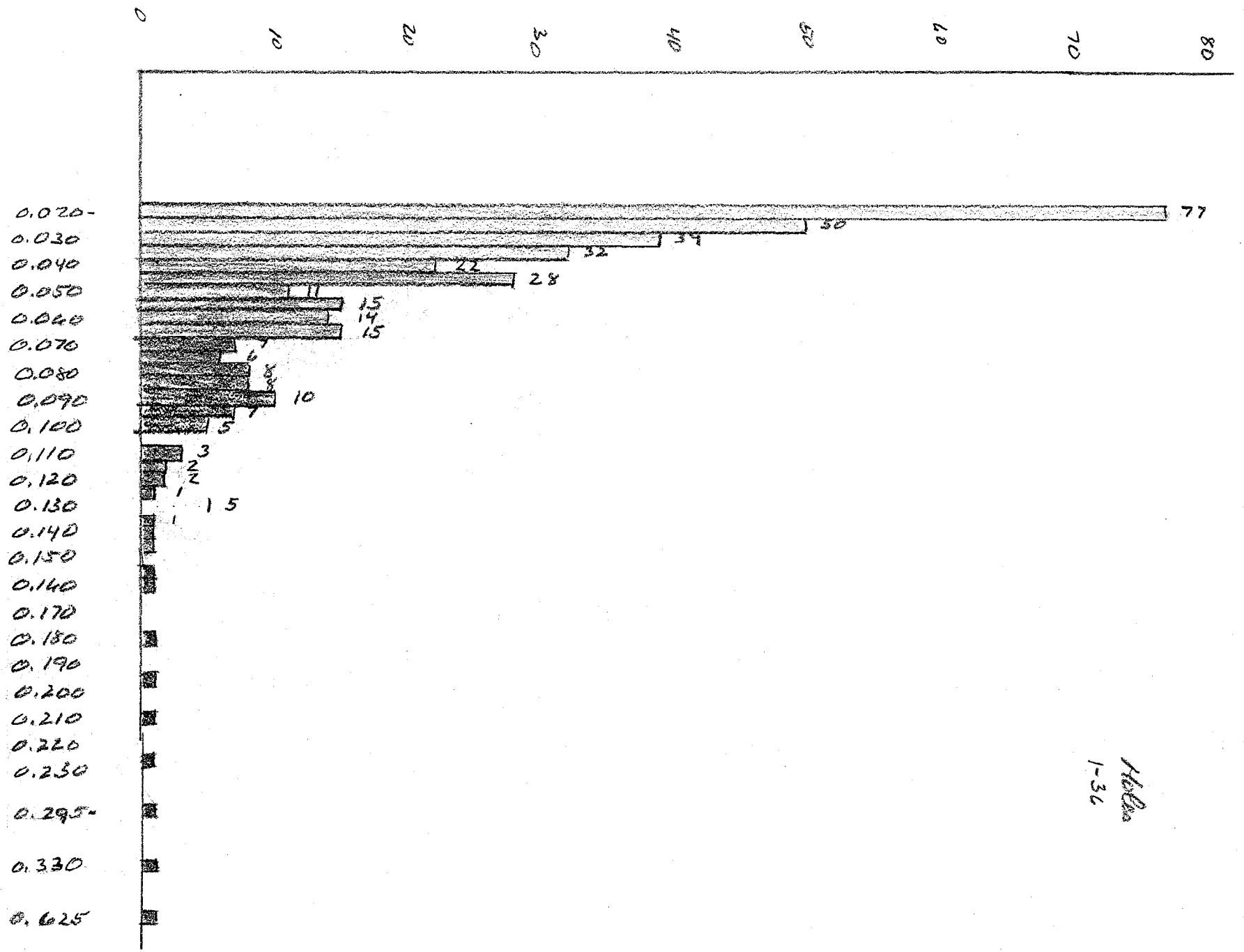
/ADD / COMBINED YM-1 TO YM-36 WITH MISSING INTERVALS ADDED FOR YM-26

PLOT FIELD 12

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	NUMBER	PCT	
0.000	0.005	999.	50.35	**********
0.005	0.010	339.	17.09	**********
0.010	0.015	167.	8.42	*****
0.015	0.020	101.	5.09	***
0.020	0.025	77.	3.88	**
0.025	0.030	50.	2.52	*
0.030	0.035	39.	1.97	*
0.035	0.040	32.	1.61	
0.040	0.045	22.	1.11	
0.045	0.050	28.	1.41	
0.050	0.055	11.	0.55	
0.055	0.060	15.	0.76	
0.060	0.065	14.	0.71	
0.065	0.070	15.	0.76	
0.070	0.075	7.	0.35	
0.075	0.080	6.	0.30	
0.080	0.085	8.	0.40	
0.085	0.090	8.	0.40	
0.090	0.095	10.	0.50	
0.095	0.100	7.	0.35	
0.100	0.105	5.	0.25	
0.110	0.115	3.	0.15	
0.115	0.120	2.	0.10	
0.120	0.125	2.	0.10	
0.125	0.130	1.	0.05	
0.130	0.135	3.	0.15	
0.135	0.140	1.	0.05	
0.140	0.145	1.	0.05	
0.145	0.150	2.	0.10	
0.155	0.160	1.	0.05	
0.160	0.165	1.	0.05	
0.180	0.185	1.	0.05	
0.195	0.200	1.	0.05	
0.210	0.215	1.	0.05	
0.225	0.230	1.	0.05	
0.295	0.300	1.	0.05	
0.330	0.335	1.	0.05	
0.625	0.630	1.	0.05	

1984.000 Number of samples


0
10
20
30
40
50
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70
80
0.020-
0.030
0.040
0.050
0.060
0.070
0.080
0.090
0.100
0.110
0.120
0.130
0.140
0.150
0.160
0.170
0.180
0.190
0.200
0.210
0.220
0.230
0.295-
0.330
0.625
77
50
39
32
22
28
11
15
14
15
7
6
8
8
10
7
5
3
2
2
1
1
5
1

Helba
1-36

/ADD / COMBINED YM-1 TO YM-36 WITH MISSING INTERVALS ADDED FOR YM-26

HISTOGRAM INTERVAL = 0.005

FROM	UP TO	SUM ASSAY	PCT	
0.000	0.005	2.120	7.63	**********
0.005	0.010	2.229	8.02	**********
0.010	0.015	1.975	7.11	**********
0.015	0.020	1.707	6.14	**********
0.020	0.025	1.684	6.06	**********
0.025	0.030	1.354	4.87	**********
0.030	0.035	1.256	4.52	**********
0.035	0.040	1.180	4.25	**********
0.040	0.045	0.921	3.32	**********
0.045	0.050	1.319	4.75	**********
0.050	0.055	0.575	2.07	*******
0.055	0.060	0.852	3.07	**********
0.060	0.065	0.863	3.11	**********
0.065	0.070	1.003	3.61	**********
0.070	0.075	0.514	1.85	******
0.075	0.080	0.460	1.66	******
0.080	0.085	0.653	2.35	********
0.085	0.090	0.698	2.51	*********
0.090	0.095	0.923	3.32	**********
0.095	0.100	0.678	2.44	*********
0.100	0.105	0.508	1.83	******
0.110	0.115	0.337	1.21	****
0.115	0.120	0.234	0.84	***
0.120	0.125	0.245	0.88	***
0.125	0.130	0.129	0.46	*
0.130	0.135	0.398	1.43	*****
0.135	0.140	0.136	0.49	*
0.140	0.145	0.142	0.51	*
0.145	0.150	0.295	1.06	***
0.155	0.160	0.156	0.56	**
0.160	0.165	0.161	0.58	**
0.180	0.185	0.183	0.66	**
0.195	0.200	0.195	0.70	**
0.210	0.215	0.212	0.76	**
0.225	0.230	0.229	0.82	***
0.295	0.300	0.297	1.07	***
0.330	0.335	0.331	1.19	****
0.625	0.630	0.628	2.26	********
		27.779		

1984.000	Number of samples
0.014	Mean
0.028	Standard Deviation

ASARCO

Southwestern Exploration Division

JDS

July 18, 1989

M.A. Miller

Bondar-Clegg
Yarnell Project
Yavapai County, AZ

I have in my in-basket a copy of the Bondar-Clegg report on samples from Norgold -- one of which was called P4 YAR.

What do you know about them?

James D. Sell

James D. Sell

JDS:mek
Att.

cc: W.L. Kurtz

Nevada 89431
(359-9330)

BONDAR-CLEGG

ASARCO Incorporated

JUL 1 2 1989

SW Exploration

Geochemical Lab Report

REPORT: R89-02741.0 (PARTIAL)

REFERENCE INFO: 4309

CLIENT: GEOCHEMICAL SERVICES INC.
PROJECT: 4309

SUBMITTED BY: GSI
DATE PRINTED: 23-JUN-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag	Silver	1	0.2 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
2	Al	Aluminum	1	0.05 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
3	As	Arsenic	1	5 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
4	Ba	Barium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
5	Be	Beryllium	1	0.5 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
6	Bi	Bismuth	1	2 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
7	Ca	Calcium	1	0.05 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
8	Cd	Cadmium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
9	Ce	Cerium	1	5 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
10	Co	Cobalt	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
11	Cr	Chromium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
12	Cu	Copper	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
13	Fe	Iron	1	0.05 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
14	Ga	Gallium	1	2 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
15	K	Potassium	1	0.05 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
16	La	Lanthanum	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
17	Li	Lithium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
18	Mg	Magnesium	1	0.05 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
19	Mn	Manganese	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
20	Mo	Molybdenum	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
21	Na	Sodium	1	0.05 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
22	Nb	Niobium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
23	Ni	Nickel	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
24	P	Phosphorus	1	0.0 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
25	Pb	Lead	1	2 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
26	Rb	Rubidium	1	20 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
27	Sb	Antimony	1	5 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
28	Sc	Scandium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
29	Se	Selenium	1	5 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
30	Sn	Tin	1	20 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
31	Sr	Strontium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
32	Ta	Tantalum	1	10 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
33	Ti	Titanium	1	0.01 PCT	MULT ACID TOT DIG	Ind. Coupled Plasma
34	Tl	Thallium	1	10 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
35	V	Vanadium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
36	W	Tungsten	1	10 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
37	Y	Yttrium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma

ASARCO Incorp

JUL 1 2 1989

SW Exploration

BONDAR-CLEGG

Geochemical Lab Report

REPORT: R89-02741.0 (PARTIAL)

REFERENCE INFO: 4309

CLIENT: GEOCHEMICAL SERVICES INC.
PROJECT: 4309

SUBMITTED BY: GSI
DATE PRINTED: 23-JUN-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
38	Zn	Zinc	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
39	Zr	Zirconium	1	1 PPM	MULT ACID TOT DIG	Ind. Coupled Plasma
40	F	Fluorine	1	20 PPM	POT HYDROXIDE FUSION	Specific Ion

RESULTS TO FOLLOW FOR: B Hg

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
P PREPARED PULP	1	4 AS REC'D	1	AS RECEIVED, NO SP	1

REPORT COPIES TO: GEOCHEMICAL SERVICES
~~NORGOLD RESOURCES INC~~
NORGOLD RESOURCES (US)INC

INVOICE TO: GEOCHEMICAL SERVICES

[illegible] A
[illegible], Nevada 8943[illegible]
702 (359-9330)

BONDAR-CLEGG

ARCO Incorporated

JUL 1 2 1989

SW Exploration

Geochemical Lab Report

REPORT: R89-02741.0

DATE PRINTED: 23-JUN-89

PROJECT: 4309

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Al PCT	As PPM	Ba PPM	Be PPM	Bi PPM	Ca PCT	Cd PPM	Ce PPM	Co PPM	[illegible] PP[illegible]
P4 YAR		2.0	1.40	6	873	1.4	5	<0.05	<1	36	1	[illegible]

Bondar-Clegg, Inc.
Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)

BONDAR-CLEGG

ASARCO Incorporated

JUL 12 1989

SW Exploration

Geochemical Lab Report

REPORT: R89-02741.0

DATE PRINTED: 23-JUN-89

PROJECT: 4309

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Fe PCT	Ga PPM	K PCT	La PPM	Li PPM	Mg PCT	Mn PPM	Mo PPM	Na PCT
P4 YAR		5	0.88	16	3.20	16	14	0.06	14	7	2.97

, Inc.
Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
702 (359-9330)

BONDAR-CLEGG

ASARCO Incorporated
JUL 12 1989
SW Exploration

Geochemical Lab Report

DATE PRINTED: 23-JUN-89

REPORT: R89-02741.0

PROJECT: 4309

SAMPLE NUMBER	ELEMENT UNITS	Ni PPM	P PCT	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Se PPM	Sn PPM	Sr PPM	Ta PPM	P(
P4 YAR		<1	0.0	20	193	9	<1	<5	<20	34	<10	0.

Bondar-Clegg, Inc.
Spice Island Dr.
Building 1, Unit A
Sparks, Nevada 89431
(359-9330)

BONDAR-CLEGG

ASARCO Incorporated
JUL 12 1989
SW Exploration

Geochemical Lab Report

REPORT: R89-02741.0

DATE PRINTED: 23-JUN-89
PROJECT: 4309

SAMPLE NUMBER	ELEMENT UNITS	Ti PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM	F PPM
P4 YAR		35	23	<10	1	13	33	430

FILE
JDS

ASARCO

Mineral Beneficiation Department
Tucson, Arizona

July 18, 1989

Mr. D. F. Skidmore
Assistant to General Manager
Southwestern Mining Department
TUCSON OFFICE

Yarnell Metallurgical Sample

The Yarnell metallurgical sample should consist of five tons of material at a size approximating product from a primary crusher. This means a nominal six-inch maximum size and, ideally, the ore should be blasted somewhat coarser with oversize reduced by plastering or by hand. To make the sample as representative as possible, I think it should be taken from at least three or four sites, and more sites would be better.

The McClelland proposal is enclosed and you will note that he requests a separate two-ton sample of fault gouge. After visiting the site and discussing this with yourself and Mr. Sell, I don't think that the gouge material will be a significant problem. However, I believe that we should take ±500 pounds (one 55-gallon drum) so that it can be at least tested in a small column.

I discussed with McClelland the best method of shipping the sample to him and he can handle either 55-gallon drums or a dump truck. He is not able to unload the bulk two- or three-ton shipping bags which I had initially proposed.

I have contacted a potential 55-gallon drum supplier who has in stock clean drums with tops and either lever lock or bolted hoops at a cost of $18.00/drum in quantities of 15 or more. I estimate that we could fill drums to average ±600 pounds so we would probably want 17 or 18 drums for the main sample plus one drum of gouge. The drum supplier is:

Ted Levine Drum Co.
303 S. Sirrine
Mesa, AZ 85210
Telephone: 602-833-3531

I will be out of the office until Friday, July 21, but should be available that day and any time next week, if required.

D. E. Crowell

DEC:brw
Attachment
cc: J. D. Sell w/o att.
M. A. Miller " "
W L Kurty
W D Gay

ASARCO Incorporated
JUL 19 1989
SW Exploration

JDS

ASARCO

Southwestern Exploration Division

July 18, 1989

J. D. Sell

Nine Hole Completion
Yarnell Project
Yavapai County, AZ

Nine holes have been proposed and discussed with you and W.L. Kurtz for the completion of the 10,000 foot Phase 2 drilling program at Yarnell.

To date we have drilled 7,345 feet in Phase 2 in 25 holes - Holes 10-36.

The proposed nine holes (2,650 feet) are designed to test areas within the main mineralized zone where some problems with continuity of thickness and/or grade of the zone is apparent. These holes will not test the mineralized zone extension to the southwest which will be recommended in Phase 3 drilling.

A portion of the Drilling Worksheet map is attached (Attachment A) with the nine holes shown and their expected depth. Table I lists the holes, approximate coordinates, depths, and program.

Table II is the estimated expenditures to July 15, and an estimated $78,000 remains in the appropriations for Phase 2 completion.

Table III is the estimated costs for the nine holes planned in this last drilling session of Phase 2 Program, and suggests a modest balance.

As noted on the bottom of Table III, a number of additional costs will or may be incurred and these may have been partially within the previous authorizations, but the work has not yet been done.

Mark A. Miller/mek

Mark A. Miller

MAM/JDS:mek
Atts.

cc: R.L. Brown
F.T. Graybeal
W.L. Kurtz

Note: The above memo was rewritten by J.D. Sell from notes supplied by M.A. Miller (vacation). The cost figures were not checked by J.D. Sell.

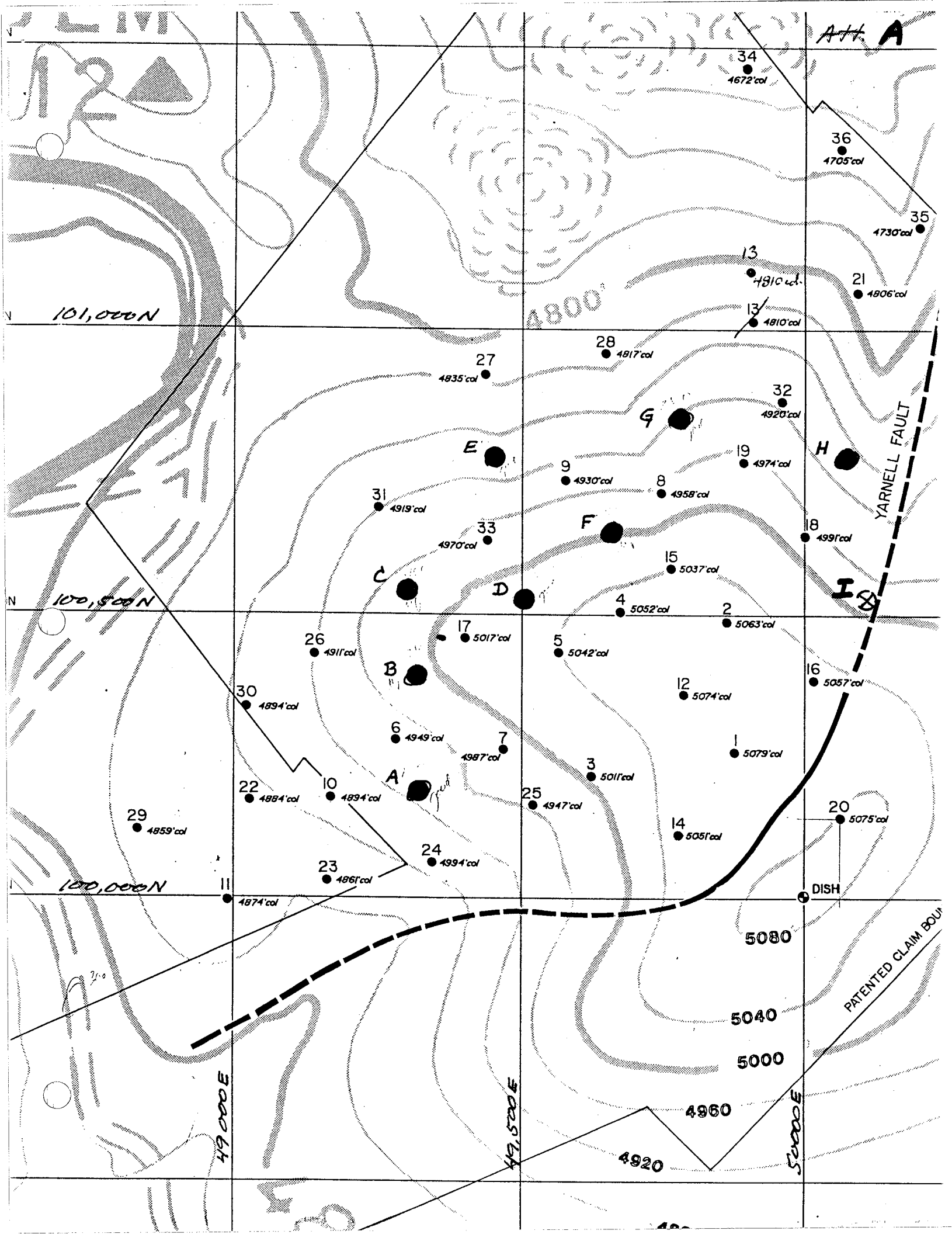

Att. A
34
4672'col
36
4705'col
35
4730'col
13
4810'col
21
4806'col
13
4810'col
4800'
101,000N
28
4817'col
27
4835'col
32
4920'col
G
E
H
19
4974'col
9
4930'col
8
4958'col
31
4919'col
YARNELL FAULT
33
4970'col
F
18
4991'col
15
5037'col
C
D
I
100,500N
4
5052'col
2
5063'col
17
5017'col
26
4911'col
5
5042'col
B
16
5057'col
12
5074'col
30
4894'col
6
4949'col
7
4987'col
1
5079'col
3
5011'col
A
22
4884'col
10
4894'col
25
4947'col
20
5075'col
29
4859'col
14
5051'col
24
4994'col
23
4861'col
100,000N
11
4874'col
DISH
5080
PATENTED CLAIM BOU
5040
5000
4960
4920
E 000 64
E 49,500
E 50,000

TABLE I

Proposed Drilling to Complete Phase 2

Hole No.	Coordinates N	Coordinates E	Depth	Program to Check
A	100,200	49,325	250	Hi-grade section down-dip from #6
B	100,400	49,325	350	Continuity of grade east of #26
C	100,550	49,300	400	Thickness-grade
D	100,525	49,500	400	Thick low-grade zone
E	100,775	49,475	350	Drop off of grade-thickness down-dip from #3
F	100,650	49,650	350	Drop off of grade-thickness down-dip from #1
G	100,850	49,775	300	Thickness of low-grade zone
H	100,775	50,075	150	Thickness of low-grade zone
I	100,525	50,100	100	Thickness of low-grade zone
			2650'	

TABLE II

Phase 2 Estimated Expenditures to 7/15/89

1.	Drilling, 7345 feet, Holes 10-36	$ 66,500
2.	Site preparation, incl. open-cut clean up	9,800
3.	Assaying	20,000
4.	Aerial Surveying & Mapping (Contract)	15,000
5.	In-house hole surveying & claim surveys	5,000
6a.	Land payments - Norgold	15,000
6b.	Land payments - Western Bldg. (thru Sept.)	5,000
7.	Supervision	
	a. Project geologist, MAM b. Temporary geologist, JJM	13,600
	c. Laborer, SPD	1,900
	d. Overhead	4,200
8.	Legal fees	10,000
9.	Living Expenses	1,200
10.	Vehicle Expenses	2,000
11.	Supplies	1,000
12.	Metallurgical Testing (Met-Con)	1,500
		$171,700
	Est. Exp. to 7/15/89 or	172,000
	Appropriation Phase 2	250,000
	Balance Unexpended	$78,000

TABLE III

Estimated Completion Costs - Phase 2

A.	Site Preparation, 9 sites @ $300/site	$ 2,700
B.	Drilling, 9 holes, 2650'	24,500
C.	Assay, 2650' at $3/ft. + pickup	8,000
D.	Supplies (bags, trays, etc.)	800
E.	Supervision: MAM, JJM, SPD	7,000
F.	Living Expense	1,000
G.	Vehicle Expense	1,500
		$45,500
	+10% Congingency	4,500
	Total Estimate	$50,000

Additional Costs to be incurred:

1.	Open-cut metallurgical sample; blasting, loading, transport, etc. 6-10 tons	$ 5,000
2.	Metallurgical Test, McClelland Labs, Reno	20,000
3.	Cost to purchase Santa Fe mineral rights	10,000
4.	Diamond drilling 800' of 6" core, metallurgy (does not include Asarco Supervision, etc.)	60,000

JDS

ASARCO

Southwestern Exploration Division

July 19, 1989

J.D. Sell

Quarterly Report
2nd Quarter 1989

Yarnell Gold Project , Yavapai County, AZ

Phase I drilling was completed at Asarco's Yarnell Project during the first part of the Quarter. Nine vertical reverse circulation hammer drill holes were drilled to test surface mineralization and alteration seen on Yarnell Hill. Results are shown on attached tabulation. Based upon the success of Phase I drilling a Phase II program was proposed consisting of 10,000' of the same type drilling. As of June 19, 1989, 16 of the 25 holes have been completed. Preliminary results are shown on attached tabulation. All data is being sent to Lou Jensen for computer analysis and ore reserve calculation. Preliminary ore reserve calculations suggest a zone 12-85' thick of +.04 opt Au. (However, several holes show thicknesses >125'.) Preliminary reserve estimates based upon the first nine holes are currently approximately 4 million tons with a 3:1 stripping ratio. First year strip will be <<1.1. We have also done preliminary ROI's with a 4 MT deposit at 2000 T/day production rate and ROI's range from 12-115% using $300-450/oz. gold.

Preliminary metallurgical work consisting of bottle roll tests on rotary drill cuttings indicate a 70-+80% recovery over 24 hours. Extended leach times (72 hrs.) did not seem to increase recovery. The Mineral Beneficiation Department has requested a bulk sample (±6000#) for further detailed work. This will be obtained soon.

Additional staking was completed in SW 1/4 Section 15 to provide protection on strike. Preliminary reconnaissance indicates typical unaltered granites, but the zone may be present at some depth. It is also recommended that State Section 22 be applied for prospecting permits.

An aerial photography company has been selected (Western Air Maps) to fly Yarnell and generate a 1" = 100' & 200' scale, 5' contour topographic map. This will start by month's end.

Additional mapping and sampling of outside areas in addition to the project area will also be completed.

Mark A. Miller/mek

MAM:mek

Mark A. Miller

TABULATION OF DRILL HOLES

HOLE NO.	ELEVATION	(F/T) INTERVAL	THICKNESS	(opt) GRADE
1	5079	55-125	70'	.055
2	5062	45-140	95'	.018
		140-245	105'	.042
3	5011	130-200	70'	.058
4	5051	175-225	50'	.015
		295-310	15'	.052
5	5041	205-285	80'	.027
		285-355	70'	.056
6	4949	150-180	30'	.041
		215-235	20'	.023
		270-280	10'	.09
7	4987	165-225	60'	.042
		225-260	35'	.016
8	4957	30-225	195'	.021
		225-275	50'	.041
9	4929	275-290	15'	.013
		290-315	25'	.048
10	4894	135-225	90'	.024
11	4874	175-190	15'	.017
		190-240	50'	.058
12	5074	115-240	125'	.03
13	4809	180-210	30'	.022
14	5051	15-60	45'	.021
		60-90	30'	.069
		150-160	10'	.037
15	5035	140-295	155'	.034
16	5056	0-40	40'	.012
		40-80	40'	.034
17	5017	240-285	45'	.018
		285-325	40'	.047
18	4990	30-100	70'	.017
		100-140	40'	.078
19	?	10-85	75'	.014
		205-235	30'	.058
20	5073	0-35	35'	.072
21	4805	25-55	30'	.018
22	?	215-225	10'	.035
		270-285	15'	.025
23	?	40-125	85'	.047
24	?			
25	?			

6/19/89

Mark A. Miller
Project Geologist

ASARCO

Exploration Department
Western USA

W. L. Kurtz
Manager

FEDERAL EXPRESS

July 19, 1989

Mr. Christopher Moat, President
NORGOLD RESOURCES INC.
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

Yarnell Project

Dear Mr. Moat:

Because you did not receive the new drill data I sent by mail on Thursday, July 13, 1989, enclosed are the following:

1. Complete list of all drill holes and assays
2. List of collar elevations
3. 1" = 200' map of drill hole locations
4. Preliminary bottle roll test data.

Again, we do not want any press releases until the Santa Fe mineral rights are obtained. Mr. Brown must review (change, if necessary) and approve your text before it is submitted for public release.

Will you please forward to Mr. Sell a copy of the Layton and Heintzleman options. We are not certain we have the final versions of them. We have to have them before we reimburse Norgold for the front money payments.

(Just received 12 pm 7/19/89 lak)

Sincerely,

W. L. Kurtz

W. L. Kurtz

WLK:mek
encs.

cc: R.L. Brown (w/o encs.)
J.D. Sell (w/o encs.)

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100255.5	49875.4	5078.5	YM-1	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100255.5	49875.4	5073.5	YM-1	220.0	0.0	180.0	0.0	5.0	0.0	0.005
100255.5	49875.4	5068.5	YM-1	220.0	0.0	180.0	5.0	10.0	0.0	0.048
100255.5	49875.4	5063.5	YM-1	220.0	0.0	180.0	10.0	15.0	0.0	0.004
100255.5	49875.4	5058.5	YM-1	220.0	0.0	180.0	15.0	20.0	0.0	0.041
100255.5	49875.4	5053.5	YM-1	220.0	0.0	180.0	20.0	25.0	0.0	0.067
100255.5	49875.4	5048.5	YM-1	220.0	0.0	180.0	25.0	30.0	0.0	0.010
100255.5	49875.4	5043.5	YM-1	220.0	0.0	180.0	30.0	35.0	0.0	0.012
100255.5	49875.4	5038.5	YM-1	220.0	0.0	180.0	35.0	40.0	0.0	0.024
100255.5	49875.4	5033.5	YM-1	220.0	0.0	180.0	40.0	45.0	0.0	0.000
100255.5	49875.4	5028.5	YM-1	220.0	0.0	180.0	45.0	50.0	0.0	0.023
100255.5	49875.4	5023.5	YM-1	220.0	0.0	180.0	50.0	55.0	0.0	0.014
100255.5	49875.4	5018.5	YM-1	220.0	0.0	180.0	55.0	60.0	0.0	0.025
100255.5	49875.4	5013.5	YM-1	220.0	0.0	180.0	60.0	65.0	0.0	0.032
100255.5	49875.4	5008.5	YM-1	220.0	0.0	180.0	65.0	70.0	0.0	0.058
100255.5	49875.4	5003.5	YM-1	220.0	0.0	180.0	70.0	75.0	0.0	0.023
100255.5	49875.4	4998.5	YM-1	220.0	0.0	180.0	75.0	80.0	0.0	0.056
100255.5	49875.4	4993.5	YM-1	220.0	0.0	180.0	80.0	85.0	0.0	0.094
100255.5	49875.4	4988.5	YM-1	220.0	0.0	180.0	85.0	90.0	0.0	0.067
100255.5	49875.4	4983.5	YM-1	220.0	0.0	180.0	90.0	95.0	0.0	0.048
100255.5	49875.4	4978.5	YM-1	220.0	0.0	180.0	95.0	100.0	0.0	0.065
100255.5	49875.4	4973.5	YM-1	220.0	0.0	180.0	100.0	105.0	0.0	-1.000
100255.5	49875.4	4968.5	YM-1	220.0	0.0	180.0	105.0	110.0	0.0	-1.000
100255.5	49875.4	4963.5	YM-1	220.0	0.0	180.0	110.0	115.0	0.0	-1.000
100255.5	49875.4	4958.5	YM-1	220.0	0.0	180.0	115.0	120.0	0.0	-1.000
100255.5	49875.4	4953.5	YM-1	220.0	0.0	180.0	120.0	125.0	0.0	0.062
100255.5	49875.4	4948.5	YM-1	220.0	0.0	180.0	125.0	130.0	0.0	0.011
100255.5	49875.4	4943.5	YM-1	220.0	0.0	180.0	130.0	135.0	0.0	0.016
100255.5	49875.4	4938.5	YM-1	220.0	0.0	180.0	135.0	140.0	0.0	0.014
100255.5	49875.4	4933.5	YM-1	220.0	0.0	180.0	140.0	145.0	0.0	0.001
100255.5	49875.4	4928.5	YM-1	220.0	0.0	180.0	145.0	150.0	0.0	0.001
100255.5	49875.4	4923.5	YM-1	220.0	0.0	180.0	150.0	155.0	0.0	0.008
100255.5	49875.4	4918.5	YM-1	220.0	0.0	180.0	155.0	160.0	0.0	0.003
100255.5	49875.4	4913.5	YM-1	220.0	0.0	180.0	160.0	165.0	0.0	0.000
100255.5	49875.4	4908.5	YM-1	220.0	0.0	180.0	165.0	170.0	0.0	0.000
100255.5	49875.4	4903.5	YM-1	220.0	0.0	180.0	170.0	175.0	0.0	0.011
100255.5	49875.4	4898.5	YM-1	220.0	0.0	180.0	175.0	180.0	0.0	0.003
100255.5	49875.4	4893.5	YM-1	220.0	0.0	180.0	180.0	185.0	0.0	0.000
100255.5	49875.4	4888.5	YM-1	220.0	0.0	180.0	185.0	190.0	0.0	0.000
100255.5	49875.4	4883.5	YM-1	220.0	0.0	180.0	190.0	195.0	0.0	0.000
100255.5	49875.4	4878.5	YM-1	220.0	0.0	180.0	195.0	200.0	0.0	0.002
100255.5	49875.4	4873.5	YM-1	220.0	0.0	180.0	200.0	205.0	0.0	0.002
100255.5	49875.4	4868.5	YM-1	220.0	0.0	180.0	205.0	210.0	0.0	0.008
100255.5	49875.4	4863.5	YM-1	220.0	0.0	180.0	210.0	215.0	0.0	0.001
100255.5	49875.4	4858.5	YM-1	220.0	0.0	180.0	215.0	220.0	0.0	0.040

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100490.7	49860.6	5063.0	YM-2	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100490.7	49860.6	5058.0	YM-2	350.0	0.0	180.0	0.0	5.0	0.0	0.014
100490.7	49860.6	5053.0	YM-2	350.0	0.0	180.0	5.0	10.0	0.0	0.001
100490.7	49860.6	5048.0	YM-2	350.0	0.0	180.0	10.0	15.0	0.0	0.013
100490.7	49860.6	5043.0	YM-2	350.0	0.0	180.0	15.0	20.0	0.0	0.014
100490.7	49860.6	5033.0	YM-2	350.0	0.0	180.0	20.0	30.0	0.0	0.001
100490.7	49860.6	5028.0	YM-2	350.0	0.0	180.0	30.0	35.0	0.0	0.001
100490.7	49860.6	5023.0	YM-2	350.0	0.0	180.0	35.0	40.0	0.0	0.002
100490.7	49860.6	5018.0	YM-2	350.0	0.0	180.0	40.0	45.0	0.0	0.001
100490.7	49860.6	5013.0	YM-2	350.0	0.0	180.0	45.0	50.0	0.0	0.023
100490.7	49860.6	5008.0	YM-2	350.0	0.0	180.0	50.0	55.0	0.0	0.038
100490.7	49860.6	5003.0	YM-2	350.0	0.0	180.0	55.0	60.0	0.0	0.015
100490.7	49860.6	4998.0	YM-2	350.0	0.0	180.0	60.0	65.0	0.0	0.009
100490.7	49860.6	4993.0	YM-2	350.0	0.0	180.0	65.0	70.0	0.0	0.006
100490.7	49860.6	4988.0	YM-2	350.0	0.0	180.0	70.0	75.0	0.0	0.010
100490.7	49860.6	4983.0	YM-2	350.0	0.0	180.0	75.0	80.0	0.0	0.023
100490.7	49860.6	4978.0	YM-2	350.0	0.0	180.0	80.0	85.0	0.0	0.017
100490.7	49860.6	4973.0	YM-2	350.0	0.0	180.0	85.0	90.0	0.0	0.013
100490.7	49860.6	4968.0	YM-2	350.0	0.0	180.0	90.0	95.0	0.0	0.011
100490.7	49860.6	4963.0	YM-2	350.0	0.0	180.0	95.0	100.0	0.0	0.035
100490.7	49860.6	4958.0	YM-2	350.0	0.0	180.0	100.0	105.0	0.0	0.006
100490.7	49860.6	4953.0	YM-2	350.0	0.0	180.0	105.0	110.0	0.0	0.037
100490.7	49860.6	4948.0	YM-2	350.0	0.0	180.0	110.0	115.0	0.0	0.003
100490.7	49860.6	4943.0	YM-2	350.0	0.0	180.0	115.0	120.0	0.0	0.009
100490.7	49860.6	4938.0	YM-2	350.0	0.0	180.0	120.0	125.0	0.0	0.034
100490.7	49860.6	4933.0	YM-2	350.0	0.0	180.0	125.0	130.0	0.0	0.013
100490.7	49860.6	4928.0	YM-2	350.0	0.0	180.0	130.0	135.0	0.0	0.014
100490.7	49860.6	4923.0	YM-2	350.0	0.0	180.0	135.0	140.0	0.0	0.009
100490.7	49860.6	4918.0	YM-2	350.0	0.0	180.0	140.0	145.0	0.0	0.076
100490.7	49860.6	4913.0	YM-2	350.0	0.0	180.0	145.0	150.0	0.0	0.027
100490.7	49860.6	4908.0	YM-2	350.0	0.0	180.0	150.0	155.0	0.0	0.011
100490.7	49860.6	4903.0	YM-2	350.0	0.0	180.0	155.0	160.0	0.0	0.010
100490.7	49860.6	4898.0	YM-2	350.0	0.0	180.0	160.0	165.0	0.0	0.043
100490.7	49860.6	4893.0	YM-2	350.0	0.0	180.0	165.0	170.0	0.0	0.005
100490.7	49860.6	4888.0	YM-2	350.0	0.0	180.0	170.0	175.0	0.0	0.047
100490.7	49860.6	4883.0	YM-2	350.0	0.0	180.0	175.0	180.0	0.0	0.124
100490.7	49860.6	4878.0	YM-2	350.0	0.0	180.0	180.0	185.0	0.0	0.101
100490.7	49860.6	4873.0	YM-2	350.0	0.0	180.0	185.0	190.0	0.0	0.085
100490.7	49860.6	4868.0	YM-2	350.0	0.0	180.0	190.0	195.0	0.0	0.029
100490.7	49860.6	4863.0	YM-2	350.0	0.0	180.0	195.0	200.0	0.0	0.053
100490.7	49860.6	4858.0	YM-2	350.0	0.0	180.0	200.0	205.0	0.0	-1.000
100490.7	49860.6	4853.0	YM-2	350.0	0.0	180.0	205.0	210.0	0.0	-1.000
100490.7	49860.6	4848.0	YM-2	350.0	0.0	180.0	210.0	215.0	0.0	-1.000
100490.7	49860.6	4843.0	YM-2	350.0	0.0	180.0	215.0	220.0	0.0	-1.000
100490.7	49860.6	4838.0	YM-2	350.0	0.0	180.0	220.0	225.0	0.0	-1.000
100490.7	49860.6	4833.0	YM-2	350.0	0.0	180.0	225.0	230.0	0.0	-1.000
100490.7	49860.6	4828.0	YM-2	350.0	0.0	180.0	230.0	235.0	0.0	-1.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100490.7	49860.6	4823.0	YM-2	350.0	0.0	180.0	235.0	240.0	0.0	-1.000
100490.7	49860.6	4818.0	YM-2	350.0	0.0	180.0	240.0	245.0	0.0	0.027
100490.7	49860.6	4813.0	YM-2	350.0	0.0	180.0	245.0	250.0	0.0	0.002
100490.7	49860.6	4808.0	YM-2	350.0	0.0	180.0	250.0	255.0	0.0	0.018
100490.7	49860.6	4803.0	YM-2	350.0	0.0	180.0	255.0	260.0	0.0	0.002
100490.7	49860.6	4798.0	YM-2	350.0	0.0	180.0	260.0	265.0	0.0	0.002
100490.7	49860.6	4793.0	YM-2	350.0	0.0	180.0	265.0	270.0	0.0	0.004
100490.7	49860.6	4788.0	YM-2	350.0	0.0	180.0	270.0	275.0	0.0	0.001
100490.7	49860.6	4783.0	YM-2	350.0	0.0	180.0	275.0	280.0	0.0	0.003
100490.7	49860.6	4778.0	YM-2	350.0	0.0	180.0	280.0	285.0	0.0	0.005
100490.7	49860.6	4773.0	YM-2	350.0	0.0	180.0	285.0	290.0	0.0	0.004
100490.7	49860.6	4768.0	YM-2	350.0	0.0	180.0	290.0	295.0	0.0	0.004
100490.7	49860.6	4763.0	YM-2	350.0	0.0	180.0	295.0	300.0	0.0	0.001
100490.7	49860.6	4758.0	YM-2	350.0	0.0	180.0	300.0	305.0	0.0	0.001
100490.7	49860.6	4753.0	YM-2	350.0	0.0	180.0	305.0	310.0	0.0	0.002
100490.7	49860.6	4748.0	YM-2	350.0	0.0	180.0	310.0	315.0	0.0	0.002
100490.7	49860.6	4743.0	YM-2	350.0	0.0	180.0	315.0	320.0	0.0	0.004
100490.7	49860.6	4738.0	YM-2	350.0	0.0	180.0	320.0	325.0	0.0	0.000
100490.7	49860.6	4733.0	YM-2	350.0	0.0	180.0	325.0	330.0	0.0	0.000
100490.7	49860.6	4728.0	YM-2	350.0	0.0	180.0	330.0	335.0	0.0	0.000
100490.7	49860.6	4723.0	YM-2	350.0	0.0	180.0	335.0	340.0	0.0	0.004
100490.7	49860.6	4718.0	YM-2	350.0	0.0	180.0	340.0	345.0	0.0	0.003
100490.7	49860.6	4713.0	YM-2	350.0	0.0	180.0	345.0	350.0	0.0	0.003

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100218.5	49625.8	5010.7	YM-3	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100218.5	49625.8	5005.7	YM-3	250.0	0.0	180.0	0.0	5.0	0.0	0.011
100218.5	49625.8	5000.7	YM-3	250.0	0.0	180.0	5.0	10.0	0.0	0.014
100218.5	49625.8	4995.7	YM-3	250.0	0.0	180.0	10.0	15.0	0.0	0.018
100218.5	49625.8	4990.7	YM-3	250.0	0.0	180.0	15.0	20.0	0.0	0.006
100218.5	49625.8	4985.7	YM-3	250.0	0.0	180.0	20.0	25.0	0.0	0.008
100218.5	49625.8	4980.7	YM-3	250.0	0.0	180.0	25.0	30.0	0.0	0.011
100218.5	49625.8	4975.7	YM-3	250.0	0.0	180.0	30.0	35.0	0.0	0.020
100218.5	49625.8	4970.7	YM-3	250.0	0.0	180.0	35.0	40.0	0.0	0.016
100218.5	49625.8	4965.7	YM-3	250.0	0.0	180.0	40.0	45.0	0.0	0.014
100218.5	49625.8	4960.7	YM-3	250.0	0.0	180.0	45.0	50.0	0.0	0.004
100218.5	49625.8	4955.7	YM-3	250.0	0.0	180.0	50.0	55.0	0.0	0.004
100218.5	49625.8	4950.7	YM-3	250.0	0.0	180.0	55.0	60.0	0.0	0.004
100218.5	49625.8	4945.7	YM-3	250.0	0.0	180.0	60.0	65.0	0.0	0.002
100218.5	49625.8	4940.7	YM-3	250.0	0.0	180.0	65.0	70.0	0.0	0.005
100218.5	49625.8	4935.7	YM-3	250.0	0.0	180.0	70.0	75.0	0.0	0.012
100218.5	49625.8	4930.7	YM-3	250.0	0.0	180.0	75.0	80.0	0.0	0.046
100218.5	49625.8	4925.7	YM-3	250.0	0.0	180.0	80.0	85.0	0.0	0.008
100218.5	49625.8	4920.7	YM-3	250.0	0.0	180.0	85.0	90.0	0.0	0.008
100218.5	49625.8	4915.7	YM-3	250.0	0.0	180.0	90.0	95.0	0.0	0.006
100218.5	49625.8	4910.7	YM-3	250.0	0.0	180.0	95.0	100.0	0.0	0.008
100218.5	49625.8	4905.7	YM-3	250.0	0.0	180.0	100.0	105.0	0.0	0.005
100218.5	49625.8	4900.7	YM-3	250.0	0.0	180.0	105.0	110.0	0.0	0.007
100218.5	49625.8	4895.7	YM-3	250.0	0.0	180.0	110.0	115.0	0.0	0.005
100218.5	49625.8	4890.7	YM-3	250.0	0.0	180.0	115.0	120.0	0.0	0.016
100218.5	49625.8	4885.7	YM-3	250.0	0.0	180.0	120.0	125.0	0.0	0.007
100218.5	49625.8	4880.7	YM-3	250.0	0.0	180.0	125.0	130.0	0.0	0.013
100218.5	49625.8	4875.7	YM-3	250.0	0.0	180.0	130.0	135.0	0.0	0.021
100218.5	49625.8	4870.7	YM-3	250.0	0.0	180.0	135.0	140.0	0.0	0.031
100218.5	49625.8	4865.7	YM-3	250.0	0.0	180.0	140.0	145.0	0.0	0.047
100218.5	49625.8	4860.7	YM-3	250.0	0.0	180.0	145.0	150.0	0.0	0.092
100218.5	49625.8	4855.7	YM-3	250.0	0.0	180.0	150.0	155.0	0.0	0.076
100218.5	49625.8	4850.7	YM-3	250.0	0.0	180.0	155.0	160.0	0.0	0.051
100218.5	49625.8	4845.7	YM-3	250.0	0.0	180.0	160.0	165.0	0.0	0.047
100218.5	49625.8	4840.7	YM-3	250.0	0.0	180.0	165.0	170.0	0.0	0.068
100218.5	49625.8	4835.7	YM-3	250.0	0.0	180.0	170.0	175.0	0.0	0.091
100218.5	49625.8	4830.7	YM-3	250.0	0.0	180.0	175.0	180.0	0.0	0.055
100218.5	49625.8	4825.7	YM-3	250.0	0.0	180.0	180.0	185.0	0.0	0.035
100218.5	49625.8	4820.7	YM-3	250.0	0.0	180.0	185.0	190.0	0.0	0.073
100218.5	49625.8	4815.7	YM-3	250.0	0.0	180.0	190.0	195.0	0.0	0.080
100218.5	49625.8	4810.7	YM-3	250.0	0.0	180.0	195.0	200.0	0.0	0.129
100218.5	49625.8	4805.7	YM-3	250.0	0.0	180.0	200.0	205.0	0.0	0.016
100218.5	49625.8	4800.7	YM-3	250.0	0.0	180.0	205.0	210.0	0.0	0.004
100218.5	49625.8	4795.7	YM-3	250.0	0.0	180.0	210.0	215.0	0.0	0.003
100218.5	49625.8	4790.7	YM-3	250.0	0.0	180.0	215.0	220.0	0.0	0.001
100218.5	49625.8	4785.7	YM-3	250.0	0.0	180.0	220.0	225.0	0.0	0.002
100218.5	49625.8	4780.7	YM-3	250.0	0.0	180.0	225.0	230.0	0.0	0.002

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100218.5	49625.8	4775.7	YM-3	250.0	0.0	180.0	230.0	235.0	0.0	0.001
100218.5	49625.8	4770.7	YM-3	250.0	0.0	180.0	235.0	240.0	0.0	0.002
100218.5	49625.8	4765.7	YM-3	250.0	0.0	180.0	240.0	245.0	0.0	0.001
100218.5	49625.8	4760.7	YM-3	250.0	0.0	180.0	245.0	250.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100505.3	49675.8	5052.3	YM-4	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100505.3	49675.8	5047.3	YM-4	440.0	0.0	180.0	0.0	5.0	0.0	0.002
100505.3	49675.8	5042.3	YM-4	440.0	0.0	180.0	5.0	10.0	0.0	0.001
100505.3	49675.8	5037.3	YM-4	440.0	0.0	180.0	10.0	15.0	0.0	0.008
100505.3	49675.8	5032.3	YM-4	440.0	0.0	180.0	15.0	20.0	0.0	0.025
100505.3	49675.8	5027.3	YM-4	440.0	0.0	180.0	20.0	25.0	0.0	0.010
100505.3	49675.8	5022.3	YM-4	440.0	0.0	180.0	25.0	30.0	0.0	0.009
100505.3	49675.8	5017.3	YM-4	440.0	0.0	180.0	30.0	35.0	0.0	0.012
100505.3	49675.8	5012.3	YM-4	440.0	0.0	180.0	35.0	40.0	0.0	0.012
100505.3	49675.8	5007.3	YM-4	440.0	0.0	180.0	40.0	45.0	0.0	0.005
100505.3	49675.8	5002.3	YM-4	440.0	0.0	180.0	45.0	50.0	0.0	0.012
100505.3	49675.8	4997.3	YM-4	440.0	0.0	180.0	50.0	55.0	0.0	0.013
100505.3	49675.8	4992.3	YM-4	440.0	0.0	180.0	55.0	60.0	0.0	0.009
100505.3	49675.8	4987.3	YM-4	440.0	0.0	180.0	60.0	65.0	0.0	0.016
100505.3	49675.8	4982.3	YM-4	440.0	0.0	180.0	65.0	70.0	0.0	0.010
100505.3	49675.8	4977.3	YM-4	440.0	0.0	180.0	70.0	75.0	0.0	0.001
100505.3	49675.8	4972.3	YM-4	440.0	0.0	180.0	75.0	80.0	0.0	0.015
100505.3	49675.8	4967.3	YM-4	440.0	0.0	180.0	80.0	85.0	0.0	0.006
100505.3	49675.8	4962.3	YM-4	440.0	0.0	180.0	85.0	90.0	0.0	0.016
100505.3	49675.8	4957.3	YM-4	440.0	0.0	180.0	90.0	95.0	0.0	0.005
100505.3	49675.8	4952.3	YM-4	440.0	0.0	180.0	95.0	100.0	0.0	0.004
100505.3	49675.8	4947.3	YM-4	440.0	0.0	180.0	100.0	105.0	0.0	0.033
100505.3	49675.8	4942.3	YM-4	440.0	0.0	180.0	105.0	110.0	0.0	0.029
100505.3	49675.8	4937.3	YM-4	440.0	0.0	180.0	110.0	115.0	0.0	0.012
100505.3	49675.8	4932.3	YM-4	440.0	0.0	180.0	115.0	120.0	0.0	0.003
100505.3	49675.8	4927.3	YM-4	440.0	0.0	180.0	120.0	125.0	0.0	0.017
100505.3	49675.8	4922.3	YM-4	440.0	0.0	180.0	125.0	130.0	0.0	0.001
100505.3	49675.8	4917.3	YM-4	440.0	0.0	180.0	130.0	135.0	0.0	0.019
100505.3	49675.8	4912.3	YM-4	440.0	0.0	180.0	135.0	140.0	0.0	0.004
100505.3	49675.8	4907.3	YM-4	440.0	0.0	180.0	140.0	145.0	0.0	0.001
100505.3	49675.8	4902.3	YM-4	440.0	0.0	180.0	145.0	150.0	0.0	0.000
100505.3	49675.8	4897.3	YM-4	440.0	0.0	180.0	150.0	155.0	0.0	0.004
100505.3	49675.8	4892.3	YM-4	440.0	0.0	180.0	155.0	160.0	0.0	0.000
100505.3	49675.8	4887.3	YM-4	440.0	0.0	180.0	160.0	165.0	0.0	0.007
100505.3	49675.8	4882.3	YM-4	440.0	0.0	180.0	165.0	170.0	0.0	0.003
100505.3	49675.8	4877.3	YM-4	440.0	0.0	180.0	170.0	175.0	0.0	0.004
100505.3	49675.8	4872.3	YM-4	440.0	0.0	180.0	175.0	180.0	0.0	0.016
100505.3	49675.8	4867.3	YM-4	440.0	0.0	180.0	180.0	185.0	0.0	0.016
100505.3	49675.8	4862.3	YM-4	440.0	0.0	180.0	185.0	190.0	0.0	0.020
100505.3	49675.8	4857.3	YM-4	440.0	0.0	180.0	190.0	195.0	0.0	0.034
100505.3	49675.8	4852.3	YM-4	440.0	0.0	180.0	195.0	200.0	0.0	0.013
100505.3	49675.8	4847.3	YM-4	440.0	0.0	180.0	200.0	205.0	0.0	0.012
100505.3	49675.8	4842.3	YM-4	440.0	0.0	180.0	205.0	210.0	0.0	0.006
100505.3	49675.8	4837.3	YM-4	440.0	0.0	180.0	210.0	215.0	0.0	0.033
100505.3	49675.8	4832.3	YM-4	440.0	0.0	180.0	215.0	220.0	0.0	0.010
100505.3	49675.8	4827.3	YM-4	440.0	0.0	180.0	220.0	225.0	0.0	0.005
100505.3	49675.8	4822.3	YM-4	440.0	0.0	180.0	225.0	230.0	0.0	0.010

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100505.3	49675.8	4817.3	YM-4	440.0	0.0	180.0	230.0	235.0	0.0	0.004
100505.3	49675.8	4812.3	YM-4	440.0	0.0	180.0	235.0	240.0	0.0	0.003
100505.3	49675.8	4807.3	YM-4	440.0	0.0	180.0	240.0	245.0	0.0	0.001
100505.3	49675.8	4802.3	YM-4	440.0	0.0	180.0	245.0	250.0	0.0	0.006
100505.3	49675.8	4797.3	YM-4	440.0	0.0	180.0	250.0	255.0	0.0	0.007
100505.3	49675.8	4792.3	YM-4	440.0	0.0	180.0	255.0	260.0	0.0	0.008
100505.3	49675.8	4787.3	YM-4	440.0	0.0	180.0	260.0	265.0	0.0	0.003
100505.3	49675.8	4782.3	YM-4	440.0	0.0	180.0	265.0	270.0	0.0	0.010
100505.3	49675.8	4777.3	YM-4	440.0	0.0	180.0	270.0	275.0	0.0	0.030
100505.3	49675.8	4772.3	YM-4	440.0	0.0	180.0	275.0	280.0	0.0	0.002
100505.3	49675.8	4767.3	YM-4	440.0	0.0	180.0	280.0	285.0	0.0	0.009
100505.3	49675.8	4762.3	YM-4	440.0	0.0	180.0	285.0	290.0	0.0	0.016
100505.3	49675.8	4757.3	YM-4	440.0	0.0	180.0	290.0	295.0	0.0	0.013
100505.3	49675.8	4752.3	YM-4	440.0	0.0	180.0	295.0	300.0	0.0	0.046
100505.3	49675.8	4747.3	YM-4	440.0	0.0	180.0	300.0	305.0	0.0	0.084
100505.3	49675.8	4742.3	YM-4	440.0	0.0	180.0	305.0	310.0	0.0	0.026
100505.3	49675.8	4737.3	YM-4	440.0	0.0	180.0	310.0	315.0	0.0	0.007
100505.3	49675.8	4732.3	YM-4	440.0	0.0	180.0	315.0	320.0	0.0	0.012
100505.3	49675.8	4727.3	YM-4	440.0	0.0	180.0	320.0	325.0	0.0	0.002
100505.3	49675.8	4722.3	YM-4	440.0	0.0	180.0	325.0	330.0	0.0	0.001
100505.3	49675.8	4717.3	YM-4	440.0	0.0	180.0	330.0	335.0	0.0	0.002
100505.3	49675.8	4712.3	YM-4	440.0	0.0	180.0	335.0	340.0	0.0	0.000
100505.3	49675.8	4707.3	YM-4	440.0	0.0	180.0	340.0	345.0	0.0	0.000
100505.3	49675.8	4702.3	YM-4	440.0	0.0	180.0	345.0	350.0	0.0	0.001
100505.3	49675.8	4697.3	YM-4	440.0	0.0	180.0	350.0	355.0	0.0	0.001
100505.3	49675.8	4692.3	YM-4	440.0	0.0	180.0	355.0	360.0	0.0	0.000
100505.3	49675.8	4687.3	YM-4	440.0	0.0	180.0	360.0	365.0	0.0	0.001
100505.3	49675.8	4682.3	YM-4	440.0	0.0	180.0	365.0	370.0	0.0	0.002
100505.3	49675.8	4677.3	YM-4	440.0	0.0	180.0	370.0	375.0	0.0	0.006
100505.3	49675.8	4672.3	YM-4	440.0	0.0	180.0	375.0	380.0	0.0	0.005
100505.3	49675.8	4667.3	YM-4	440.0	0.0	180.0	380.0	385.0	0.0	0.004
100505.3	49675.8	4662.3	YM-4	440.0	0.0	180.0	385.0	390.0	0.0	0.007
100505.3	49675.8	4657.3	YM-4	440.0	0.0	180.0	390.0	395.0	0.0	0.002
100505.3	49675.8	4652.3	YM-4	440.0	0.0	180.0	395.0	400.0	0.0	0.001
100505.3	49675.8	4647.3	YM-4	440.0	0.0	180.0	400.0	405.0	0.0	0.005
100505.3	49675.8	4642.3	YM-4	440.0	0.0	180.0	405.0	410.0	0.0	0.000
100505.3	49675.8	4637.3	YM-4	440.0	0.0	180.0	410.0	415.0	0.0	0.000
100505.3	49675.8	4632.3	YM-4	440.0	0.0	180.0	415.0	420.0	0.0	0.000
100505.3	49675.8	4627.3	YM-4	440.0	0.0	180.0	420.0	425.0	0.0	0.000
100505.3	49675.8	4622.3	YM-4	440.0	0.0	180.0	425.0	430.0	0.0	0.000
100505.3	49675.8	4617.3	YM-4	440.0	0.0	180.0	430.0	435.0	0.0	0.000
100505.3	49675.8	4612.3	YM-4	440.0	0.0	180.0	435.0	440.0	0.0	0.005

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100437.1	49565.2	5041.8	YM-5	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100437.1	49565.2	5036.8	YM-5	370.0	0.0	180.0	0.0	5.0	0.0	0.000
100437.1	49565.2	5031.8	YM-5	370.0	0.0	180.0	5.0	10.0	0.0	0.000
100437.1	49565.2	5026.8	YM-5	370.0	0.0	180.0	10.0	15.0	0.0	0.005
100437.1	49565.2	5021.8	YM-5	370.0	0.0	180.0	15.0	20.0	0.0	0.001
100437.1	49565.2	5016.8	YM-5	370.0	0.0	180.0	20.0	25.0	0.0	0.001
100437.1	49565.2	5011.8	YM-5	370.0	0.0	180.0	25.0	30.0	0.0	0.002
100437.1	49565.2	5006.8	YM-5	370.0	0.0	180.0	30.0	35.0	0.0	0.000
100437.1	49565.2	5001.8	YM-5	370.0	0.0	180.0	35.0	40.0	0.0	0.001
100437.1	49565.2	4996.8	YM-5	370.0	0.0	180.0	40.0	45.0	0.0	0.002
100437.1	49565.2	4991.8	YM-5	370.0	0.0	180.0	45.0	50.0	0.0	0.001
100437.1	49565.2	4986.8	YM-5	370.0	0.0	180.0	50.0	55.0	0.0	0.097
100437.1	49565.2	4981.8	YM-5	370.0	0.0	180.0	55.0	60.0	0.0	0.009
100437.1	49565.2	4976.8	YM-5	370.0	0.0	180.0	60.0	65.0	0.0	0.001
100437.1	49565.2	4971.8	YM-5	370.0	0.0	180.0	65.0	70.0	0.0	0.002
100437.1	49565.2	4966.8	YM-5	370.0	0.0	180.0	70.0	75.0	0.0	0.007
100437.1	49565.2	4961.8	YM-5	370.0	0.0	180.0	75.0	80.0	0.0	0.005
100437.1	49565.2	4956.8	YM-5	370.0	0.0	180.0	80.0	85.0	0.0	0.001
100437.1	49565.2	4951.8	YM-5	370.0	0.0	180.0	85.0	90.0	0.0	0.000
100437.1	49565.2	4946.8	YM-5	370.0	0.0	180.0	90.0	95.0	0.0	0.001
100437.1	49565.2	4941.8	YM-5	370.0	0.0	180.0	95.0	100.0	0.0	0.002
100437.1	49565.2	4936.8	YM-5	370.0	0.0	180.0	100.0	105.0	0.0	0.000
100437.1	49565.2	4931.8	YM-5	370.0	0.0	180.0	105.0	110.0	0.0	0.000
100437.1	49565.2	4926.8	YM-5	370.0	0.0	180.0	110.0	115.0	0.0	0.007
100437.1	49565.2	4921.8	YM-5	370.0	0.0	180.0	115.0	120.0	0.0	0.005
100437.1	49565.2	4916.8	YM-5	370.0	0.0	180.0	120.0	125.0	0.0	0.001
100437.1	49565.2	4911.8	YM-5	370.0	0.0	180.0	125.0	130.0	0.0	0.000
100437.1	49565.2	4906.8	YM-5	370.0	0.0	180.0	130.0	135.0	0.0	0.004
100437.1	49565.2	4901.8	YM-5	370.0	0.0	180.0	135.0	140.0	0.0	0.000
100437.1	49565.2	4896.8	YM-5	370.0	0.0	180.0	140.0	145.0	0.0	0.000
100437.1	49565.2	4891.8	YM-5	370.0	0.0	180.0	145.0	150.0	0.0	0.000
100437.1	49565.2	4886.8	YM-5	370.0	0.0	180.0	150.0	155.0	0.0	0.024
100437.1	49565.2	4881.8	YM-5	370.0	0.0	180.0	155.0	160.0	0.0	0.001
100437.1	49565.2	4876.8	YM-5	370.0	0.0	180.0	160.0	165.0	0.0	0.007
100437.1	49565.2	4871.8	YM-5	370.0	0.0	180.0	165.0	170.0	0.0	0.006
100437.1	49565.2	4866.8	YM-5	370.0	0.0	180.0	170.0	175.0	0.0	0.003
100437.1	49565.2	4861.8	YM-5	370.0	0.0	180.0	175.0	180.0	0.0	0.001
100437.1	49565.2	4856.8	YM-5	370.0	0.0	180.0	180.0	185.0	0.0	0.003
100437.1	49565.2	4851.8	YM-5	370.0	0.0	180.0	185.0	190.0	0.0	0.004
100437.1	49565.2	4846.8	YM-5	370.0	0.0	180.0	190.0	195.0	0.0	0.003
100437.1	49565.2	4841.8	YM-5	370.0	0.0	180.0	195.0	200.0	0.0	0.001
100437.1	49565.2	4836.8	YM-5	370.0	0.0	180.0	200.0	205.0	0.0	0.029
100437.1	49565.2	4831.8	YM-5	370.0	0.0	180.0	205.0	210.0	0.0	0.045
100437.1	49565.2	4826.8	YM-5	370.0	0.0	180.0	210.0	215.0	0.0	0.195
100437.1	49565.2	4821.8	YM-5	370.0	0.0	180.0	215.0	220.0	0.0	0.020
100437.1	49565.2	4816.8	YM-5	370.0	0.0	180.0	220.0	225.0	0.0	0.001
100437.1	49565.2	4811.8	YM-5	370.0	0.0	180.0	225.0	230.0	0.0	0.011

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100437.1	49565.2	4806.8	YM-5	370.0	0.0	180.0	230.0	235.0	0.0	0.055
100437.1	49565.2	4801.8	YM-5	370.0	0.0	180.0	235.0	240.0	0.0	0.006
100437.1	49565.2	4796.8	YM-5	370.0	0.0	180.0	240.0	245.0	0.0	0.051
100437.1	49565.2	4791.8	YM-5	370.0	0.0	180.0	245.0	250.0	0.0	0.013
100437.1	49565.2	4786.8	YM-5	370.0	0.0	180.0	250.0	255.0	0.0	0.090
100437.1	49565.2	4781.8	YM-5	370.0	0.0	180.0	255.0	260.0	0.0	0.024
100437.1	49565.2	4776.8	YM-5	370.0	0.0	180.0	260.0	265.0	0.0	0.027
100437.1	49565.2	4771.8	YM-5	370.0	0.0	180.0	265.0	270.0	0.0	0.025
100437.1	49565.2	4766.8	YM-5	370.0	0.0	180.0	270.0	275.0	0.0	0.010
100437.1	49565.2	4761.8	YM-5	370.0	0.0	180.0	275.0	280.0	0.0	0.013
100437.1	49565.2	4756.8	YM-5	370.0	0.0	180.0	280.0	285.0	0.0	0.014
100437.1	49565.2	4751.8	YM-5	370.0	0.0	180.0	285.0	290.0	0.0	0.065
100437.1	49565.2	4746.8	YM-5	370.0	0.0	180.0	290.0	295.0	0.0	0.061
100437.1	49565.2	4741.8	YM-5	370.0	0.0	180.0	295.0	300.0	0.0	-1.000
100437.1	49565.2	4736.8	YM-5	370.0	0.0	180.0	300.0	305.0	0.0	-1.000
100437.1	49565.2	4731.8	YM-5	370.0	0.0	180.0	305.0	310.0	0.0	-1.000
100437.1	49565.2	4726.8	YM-5	370.0	0.0	180.0	310.0	315.0	0.0	-1.000
100437.1	49565.2	4721.8	YM-5	370.0	0.0	180.0	315.0	320.0	0.0	-1.000
100437.1	49565.2	4716.8	YM-5	370.0	0.0	180.0	320.0	325.0	0.0	-1.000
100437.1	49565.2	4711.8	YM-5	370.0	0.0	180.0	325.0	330.0	0.0	-1.000
100437.1	49565.2	4706.8	YM-5	370.0	0.0	180.0	330.0	335.0	0.0	0.004
100437.1	49565.2	4701.8	YM-5	370.0	0.0	180.0	335.0	340.0	0.0	0.080
100437.1	49565.2	4696.8	YM-5	370.0	0.0	180.0	340.0	345.0	0.0	0.067
100437.1	49565.2	4691.8	YM-5	370.0	0.0	180.0	345.0	350.0	0.0	0.037
100437.1	49565.2	4686.8	YM-5	370.0	0.0	180.0	350.0	355.0	0.0	0.052
100437.1	49565.2	4681.8	YM-5	370.0	0.0	180.0	355.0	360.0	0.0	0.006
100437.1	49565.2	4676.8	YM-5	370.0	0.0	180.0	360.0	365.0	0.0	0.007
100437.1	49565.2	4671.8	YM-5	370.0	0.0	180.0	365.0	370.0	0.0	0.008
100437.1	49565.2	4666.8	YM-5	370.0	0.0	180.0	370.0	375.0	0.0	0.010

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100278.7	49286.7	4949.0	YM-6	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100278.7	49286.7	4944.0	YM-6	400.0	0.0	180.0	0.0	5.0	0.0	0.016
100278.7	49286.7	4939.0	YM-6	400.0	0.0	180.0	5.0	10.0	0.0	0.002
100278.7	49286.7	4934.0	YM-6	400.0	0.0	180.0	10.0	15.0	0.0	0.003
100278.7	49286.7	4929.0	YM-6	400.0	0.0	180.0	15.0	20.0	0.0	0.002
100278.7	49286.7	4924.0	YM-6	400.0	0.0	180.0	20.0	25.0	0.0	0.009
100278.7	49286.7	4919.0	YM-6	400.0	0.0	180.0	25.0	30.0	0.0	0.004
100278.7	49286.7	4914.0	YM-6	400.0	0.0	180.0	30.0	35.0	0.0	0.003
100278.7	49286.7	4909.0	YM-6	400.0	0.0	180.0	35.0	40.0	0.0	0.002
100278.7	49286.7	4904.0	YM-6	400.0	0.0	180.0	40.0	45.0	0.0	0.003
100278.7	49286.7	4899.0	YM-6	400.0	0.0	180.0	45.0	50.0	0.0	0.005
100278.7	49286.7	4894.0	YM-6	400.0	0.0	180.0	50.0	55.0	0.0	0.002
100278.7	49286.7	4889.0	YM-6	400.0	0.0	180.0	55.0	60.0	0.0	0.002
100278.7	49286.7	4884.0	YM-6	400.0	0.0	180.0	60.0	65.0	0.0	0.001
100278.7	49286.7	4879.0	YM-6	400.0	0.0	180.0	65.0	70.0	0.0	0.001
100278.7	49286.7	4874.0	YM-6	400.0	0.0	180.0	70.0	75.0	0.0	0.002
100278.7	49286.7	4869.0	YM-6	400.0	0.0	180.0	75.0	80.0	0.0	0.001
100278.7	49286.7	4864.0	YM-6	400.0	0.0	180.0	80.0	85.0	0.0	0.001
100278.7	49286.7	4859.0	YM-6	400.0	0.0	180.0	85.0	90.0	0.0	0.002
100278.7	49286.7	4854.0	YM-6	400.0	0.0	180.0	90.0	95.0	0.0	0.007
100278.7	49286.7	4849.0	YM-6	400.0	0.0	180.0	95.0	100.0	0.0	0.003
100278.7	49286.7	4844.0	YM-6	400.0	0.0	180.0	100.0	105.0	0.0	0.002
100278.7	49286.7	4839.0	YM-6	400.0	0.0	180.0	105.0	110.0	0.0	0.016
100278.7	49286.7	4834.0	YM-6	400.0	0.0	180.0	110.0	115.0	0.0	0.002
100278.7	49286.7	4829.0	YM-6	400.0	0.0	180.0	115.0	120.0	0.0	0.003
100278.7	49286.7	4824.0	YM-6	400.0	0.0	180.0	120.0	125.0	0.0	0.007
100278.7	49286.7	4819.0	YM-6	400.0	0.0	180.0	125.0	130.0	0.0	0.010
100278.7	49286.7	4814.0	YM-6	400.0	0.0	180.0	130.0	135.0	0.0	0.012
100278.7	49286.7	4809.0	YM-6	400.0	0.0	180.0	135.0	140.0	0.0	0.069
100278.7	49286.7	4804.0	YM-6	400.0	0.0	180.0	140.0	145.0	0.0	0.016
100278.7	49286.7	4799.0	YM-6	400.0	0.0	180.0	145.0	150.0	0.0	0.007
100278.7	49286.7	4794.0	YM-6	400.0	0.0	180.0	150.0	155.0	0.0	0.057
100278.7	49286.7	4789.0	YM-6	400.0	0.0	180.0	155.0	160.0	0.0	0.017
100278.7	49286.7	4784.0	YM-6	400.0	0.0	180.0	160.0	165.0	0.0	0.055
100278.7	49286.7	4779.0	YM-6	400.0	0.0	180.0	165.0	170.0	0.0	0.057
100278.7	49286.7	4774.0	YM-6	400.0	0.0	180.0	170.0	175.0	0.0	0.012
100278.7	49286.7	4769.0	YM-6	400.0	0.0	180.0	175.0	180.0	0.0	0.156
100278.7	49286.7	4764.0	YM-6	400.0	0.0	180.0	180.0	185.0	0.0	0.017
100278.7	49286.7	4759.0	YM-6	400.0	0.0	180.0	185.0	190.0	0.0	0.004
100278.7	49286.7	4754.0	YM-6	400.0	0.0	180.0	190.0	195.0	0.0	0.009
100278.7	49286.7	4749.0	YM-6	400.0	0.0	180.0	195.0	200.0	0.0	0.004
100278.7	49286.7	4744.0	YM-6	400.0	0.0	180.0	200.0	205.0	0.0	0.006
100278.7	49286.7	4739.0	YM-6	400.0	0.0	180.0	205.0	210.0	0.0	0.010
100278.7	49286.7	4734.0	YM-6	400.0	0.0	180.0	210.0	215.0	0.0	0.010
100278.7	49286.7	4729.0	YM-6	400.0	0.0	180.0	215.0	220.0	0.0	0.025
100278.7	49286.7	4724.0	YM-6	400.0	0.0	180.0	220.0	225.0	0.0	0.024
100278.7	49286.7	4719.0	YM-6	400.0	0.0	180.0	225.0	230.0	0.0	0.033

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100278.7	49286.7	4714.0	YM-6	400.0	0.0	180.0	230.0	235.0	0.0	0.005
100278.7	49286.7	4709.0	YM-6	400.0	0.0	180.0	235.0	240.0	0.0	0.003
100278.7	49286.7	4704.0	YM-6	400.0	0.0	180.0	240.0	245.0	0.0	0.000
100278.7	49286.7	4699.0	YM-6	400.0	0.0	180.0	245.0	250.0	0.0	0.003
100278.7	49286.7	4694.0	YM-6	400.0	0.0	180.0	250.0	255.0	0.0	0.005
100278.7	49286.7	4689.0	YM-6	400.0	0.0	180.0	255.0	260.0	0.0	0.006
100278.7	49286.7	4684.0	YM-6	400.0	0.0	180.0	260.0	265.0	0.0	0.003
100278.7	49286.7	4679.0	YM-6	400.0	0.0	180.0	265.0	270.0	0.0	0.004
100278.7	49286.7	4674.0	YM-6	400.0	0.0	180.0	270.0	275.0	0.0	0.048
100278.7	49286.7	4669.0	YM-6	400.0	0.0	180.0	275.0	280.0	0.0	0.132
100278.7	49286.7	4664.0	YM-6	400.0	0.0	180.0	280.0	285.0	0.0	0.004
100278.7	49286.7	4659.0	YM-6	400.0	0.0	180.0	285.0	290.0	0.0	0.007
100278.7	49286.7	4654.0	YM-6	400.0	0.0	180.0	290.0	295.0	0.0	0.004
100278.7	49286.7	4649.0	YM-6	400.0	0.0	180.0	295.0	300.0	0.0	0.003
100278.7	49286.7	4644.0	YM-6	400.0	0.0	180.0	300.0	305.0	0.0	0.005
100278.7	49286.7	4639.0	YM-6	400.0	0.0	180.0	305.0	310.0	0.0	0.002
100278.7	49286.7	4634.0	YM-6	400.0	0.0	180.0	310.0	315.0	0.0	0.004
100278.7	49286.7	4629.0	YM-6	400.0	0.0	180.0	315.0	320.0	0.0	0.003
100278.7	49286.7	4624.0	YM-6	400.0	0.0	180.0	320.0	325.0	0.0	0.002
100278.7	49286.7	4619.0	YM-6	400.0	0.0	180.0	325.0	330.0	0.0	0.003
100278.7	49286.7	4614.0	YM-6	400.0	0.0	180.0	330.0	335.0	0.0	0.003
100278.7	49286.7	4609.0	YM-6	400.0	0.0	180.0	335.0	340.0	0.0	0.002
100278.7	49286.7	4604.0	YM-6	400.0	0.0	180.0	340.0	345.0	0.0	0.001
100278.7	49286.7	4599.0	YM-6	400.0	0.0	180.0	345.0	350.0	0.0	0.003
100278.7	49286.7	4594.0	YM-6	400.0	0.0	180.0	350.0	355.0	0.0	0.002
100278.7	49286.7	4589.0	YM-6	400.0	0.0	180.0	355.0	360.0	0.0	0.004
100278.7	49286.7	4584.0	YM-6	400.0	0.0	180.0	360.0	365.0	0.0	0.003
100278.7	49286.7	4579.0	YM-6	400.0	0.0	180.0	365.0	370.0	0.0	0.005
100278.7	49286.7	4574.0	YM-6	400.0	0.0	180.0	370.0	375.0	0.0	0.003
100278.7	49286.7	4569.0	YM-6	400.0	0.0	180.0	375.0	380.0	0.0	0.002
100278.7	49286.7	4564.0	YM-6	400.0	0.0	180.0	380.0	385.0	0.0	0.002
100278.7	49286.7	4559.0	YM-6	400.0	0.0	180.0	385.0	390.0	0.0	0.001
100278.7	49286.7	4554.0	YM-6	400.0	0.0	180.0	390.0	395.0	0.0	0.001
100278.7	49286.7	4549.0	YM-6	400.0	0.0	180.0	395.0	400.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100260.5	49471.6	4986.9	YM-7	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100260.5	49471.6	4981.9	YM-7	292.0	0.0	180.0	0.0	5.0	0.0	0.008
100260.5	49471.6	4976.9	YM-7	292.0	0.0	180.0	5.0	10.0	0.0	0.002
100260.5	49471.6	4971.9	YM-7	292.0	0.0	180.0	10.0	15.0	0.0	0.003
100260.5	49471.6	4966.9	YM-7	292.0	0.0	180.0	15.0	20.0	0.0	0.007
100260.5	49471.6	4961.9	YM-7	292.0	0.0	180.0	20.0	25.0	0.0	0.013
100260.5	49471.6	4956.9	YM-7	292.0	0.0	180.0	25.0	30.0	0.0	0.005
100260.5	49471.6	4951.9	YM-7	292.0	0.0	180.0	30.0	35.0	0.0	0.003
100260.5	49471.6	4946.9	YM-7	292.0	0.0	180.0	35.0	40.0	0.0	0.002
100260.5	49471.6	4941.9	YM-7	292.0	0.0	180.0	40.0	45.0	0.0	0.005
100260.5	49471.6	4931.9	YM-7	292.0	0.0	180.0	45.0	55.0	0.0	0.002
100260.5	49471.6	4926.9	YM-7	292.0	0.0	180.0	55.0	60.0	0.0	0.018
100260.5	49471.6	4921.9	YM-7	292.0	0.0	180.0	60.0	65.0	0.0	0.004
100260.5	49471.6	4916.9	YM-7	292.0	0.0	180.0	65.0	70.0	0.0	0.007
100260.5	49471.6	4911.9	YM-7	292.0	0.0	180.0	70.0	75.0	0.0	0.004
100260.5	49471.6	4906.9	YM-7	292.0	0.0	180.0	75.0	80.0	0.0	0.003
100260.5	49471.6	4901.9	YM-7	292.0	0.0	180.0	80.0	85.0	0.0	0.002
100260.5	49471.6	4896.9	YM-7	292.0	0.0	180.0	85.0	90.0	0.0	0.003
100260.5	49471.6	4891.9	YM-7	292.0	0.0	180.0	90.0	95.0	0.0	0.001
100260.5	49471.6	4886.9	YM-7	292.0	0.0	180.0	95.0	100.0	0.0	0.012
100260.5	49471.6	4881.9	YM-7	292.0	0.0	180.0	100.0	105.0	0.0	0.002
100260.5	49471.6	4876.9	YM-7	292.0	0.0	180.0	105.0	110.0	0.0	0.003
100260.5	49471.6	4871.9	YM-7	292.0	0.0	180.0	110.0	115.0	0.0	0.003
100260.5	49471.6	4866.9	YM-7	292.0	0.0	180.0	115.0	120.0	0.0	0.004
100260.5	49471.6	4861.9	YM-7	292.0	0.0	180.0	120.0	125.0	0.0	0.003
100260.5	49471.6	4856.9	YM-7	292.0	0.0	180.0	125.0	130.0	0.0	0.005
100260.5	49471.6	4851.9	YM-7	292.0	0.0	180.0	130.0	135.0	0.0	0.003
100260.5	49471.6	4846.9	YM-7	292.0	0.0	180.0	135.0	140.0	0.0	0.004
100260.5	49471.6	4841.9	YM-7	292.0	0.0	180.0	140.0	145.0	0.0	0.004
100260.5	49471.6	4836.9	YM-7	292.0	0.0	180.0	145.0	150.0	0.0	0.008
100260.5	49471.6	4831.9	YM-7	292.0	0.0	180.0	150.0	155.0	0.0	0.007
100260.5	49471.6	4826.9	YM-7	292.0	0.0	180.0	155.0	160.0	0.0	0.024
100260.5	49471.6	4821.9	YM-7	292.0	0.0	180.0	160.0	165.0	0.0	0.016
100260.5	49471.6	4816.9	YM-7	292.0	0.0	180.0	165.0	170.0	0.0	0.034
100260.5	49471.6	4811.9	YM-7	292.0	0.0	180.0	170.0	175.0	0.0	0.091
100260.5	49471.6	4806.9	YM-7	292.0	0.0	180.0	175.0	180.0	0.0	0.055
100260.5	49471.6	4801.9	YM-7	292.0	0.0	180.0	180.0	185.0	0.0	0.142
100260.5	49471.6	4796.9	YM-7	292.0	0.0	180.0	185.0	190.0	0.0	0.020
100260.5	49471.6	4791.9	YM-7	292.0	0.0	180.0	190.0	195.0	0.0	0.011
100260.5	49471.6	4786.9	YM-7	292.0	0.0	180.0	195.0	200.0	0.0	0.053
100260.5	49471.6	4781.9	YM-7	292.0	0.0	180.0	200.0	205.0	0.0	0.036
100260.5	49471.6	4776.9	YM-7	292.0	0.0	180.0	205.0	210.0	0.0	0.042
100260.5	49471.6	4771.9	YM-7	292.0	0.0	180.0	210.0	215.0	0.0	0.062
100260.5	49471.6	4766.9	YM-7	292.0	0.0	180.0	215.0	220.0	0.0	0.056
100260.5	49471.6	4761.9	YM-7	292.0	0.0	180.0	220.0	225.0	0.0	-1.000
100260.5	49471.6	4756.9	YM-7	292.0	0.0	180.0	225.0	230.0	0.0	0.022
100260.5	49471.6	4751.9	YM-7	292.0	0.0	180.0	230.0	235.0	0.0	0.013

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100260.5	49471.6	4746.9	YM-7	292.0	0.0	180.0	235.0	240.0	0.0	0.010
100260.5	49471.6	4741.9	YM-7	292.0	0.0	180.0	240.0	245.0	0.0	0.022
100260.5	49471.6	4736.9	YM-7	292.0	0.0	180.0	245.0	250.0	0.0	0.010
100260.5	49471.6	4731.9	YM-7	292.0	0.0	180.0	250.0	255.0	0.0	0.013
100260.5	49471.6	4726.9	YM-7	292.0	0.0	180.0	255.0	260.0	0.0	0.019
100260.5	49471.6	4721.9	YM-7	292.0	0.0	180.0	260.0	265.0	0.0	0.008
100260.5	49471.6	4716.9	YM-7	292.0	0.0	180.0	265.0	270.0	0.0	0.003
100260.5	49471.6	4711.9	YM-7	292.0	0.0	180.0	270.0	275.0	0.0	0.002
100260.5	49471.6	4706.9	YM-7	292.0	0.0	180.0	275.0	280.0	0.0	0.004
100260.5	49471.6	4701.9	YM-7	292.0	0.0	180.0	280.0	285.0	0.0	0.005
100260.5	49471.6	4696.9	YM-7	292.0	0.0	180.0	285.0	290.0	0.0	0.003
100260.5	49471.6	4694.9	YM-7	292.0	0.0	180.0	290.0	292.0	0.0	0.002

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100717.9	49749.2	4957.9	YM-8	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100717.9	49749.2	4952.9	YM-8	350.0	0.0	180.0	0.0	5.0	0.0	0.004
100717.9	49749.2	4947.9	YM-8	350.0	0.0	180.0	5.0	10.0	0.0	0.003
100717.9	49749.2	4942.9	YM-8	350.0	0.0	180.0	10.0	15.0	0.0	0.027
100717.9	49749.2	4937.9	YM-8	350.0	0.0	180.0	15.0	20.0	0.0	0.002
100717.9	49749.2	4932.9	YM-8	350.0	0.0	180.0	20.0	25.0	0.0	0.008
100717.9	49749.2	4927.9	YM-8	350.0	0.0	180.0	25.0	30.0	0.0	0.004
100717.9	49749.2	4922.9	YM-8	350.0	0.0	180.0	30.0	35.0	0.0	0.037
100717.9	49749.2	4917.9	YM-8	350.0	0.0	180.0	35.0	40.0	0.0	0.212
100717.9	49749.2	4912.9	YM-8	350.0	0.0	180.0	40.0	45.0	0.0	0.015
100717.9	49749.2	4907.9	YM-8	350.0	0.0	180.0	45.0	50.0	0.0	0.020
100717.9	49749.2	4902.9	YM-8	350.0	0.0	180.0	50.0	55.0	0.0	0.044
100717.9	49749.2	4897.9	YM-8	350.0	0.0	180.0	55.0	60.0	0.0	0.010
100717.9	49749.2	4892.9	YM-8	350.0	0.0	180.0	60.0	65.0	0.0	0.004
100717.9	49749.2	4887.9	YM-8	350.0	0.0	180.0	65.0	70.0	0.0	0.023
100717.9	49749.2	4882.9	YM-8	350.0	0.0	180.0	70.0	75.0	0.0	0.010
100717.9	49749.2	4877.9	YM-8	350.0	0.0	180.0	75.0	80.0	0.0	0.037
100717.9	49749.2	4872.9	YM-8	350.0	0.0	180.0	80.0	85.0	0.0	0.008
100717.9	49749.2	4867.9	YM-8	350.0	0.0	180.0	85.0	90.0	0.0	0.011
100717.9	49749.2	4862.9	YM-8	350.0	0.0	180.0	90.0	95.0	0.0	0.012
100717.9	49749.2	4857.9	YM-8	350.0	0.0	180.0	95.0	100.0	0.0	0.015
100717.9	49749.2	4852.9	YM-8	350.0	0.0	180.0	100.0	105.0	0.0	0.004
100717.9	49749.2	4847.9	YM-8	350.0	0.0	180.0	105.0	110.0	0.0	0.010
100717.9	49749.2	4842.9	YM-8	350.0	0.0	180.0	110.0	115.0	0.0	0.011
100717.9	49749.2	4837.9	YM-8	350.0	0.0	180.0	115.0	120.0	0.0	0.033
100717.9	49749.2	4832.9	YM-8	350.0	0.0	180.0	120.0	125.0	0.0	0.005
100717.9	49749.2	4827.9	YM-8	350.0	0.0	180.0	125.0	130.0	0.0	0.011
100717.9	49749.2	4822.9	YM-8	350.0	0.0	180.0	130.0	135.0	0.0	0.047
100717.9	49749.2	4817.9	YM-8	350.0	0.0	180.0	135.0	140.0	0.0	0.000
100717.9	49749.2	4812.9	YM-8	350.0	0.0	180.0	140.0	145.0	0.0	0.004
100717.9	49749.2	4807.9	YM-8	350.0	0.0	180.0	145.0	150.0	0.0	0.004
100717.9	49749.2	4802.9	YM-8	350.0	0.0	180.0	150.0	155.0	0.0	0.020
100717.9	49749.2	4797.9	YM-8	350.0	0.0	180.0	155.0	160.0	0.0	0.043
100717.9	49749.2	4792.9	YM-8	350.0	0.0	180.0	160.0	165.0	0.0	0.008
100717.9	49749.2	4787.9	YM-8	350.0	0.0	180.0	165.0	170.0	0.0	0.047
100717.9	49749.2	4782.9	YM-8	350.0	0.0	180.0	170.0	175.0	0.0	0.014
100717.9	49749.2	4777.9	YM-8	350.0	0.0	180.0	175.0	180.0	0.0	0.016
100717.9	49749.2	4772.9	YM-8	350.0	0.0	180.0	180.0	185.0	0.0	0.029
100717.9	49749.2	4767.9	YM-8	350.0	0.0	180.0	185.0	190.0	0.0	0.004
100717.9	49749.2	4762.9	YM-8	350.0	0.0	180.0	190.0	195.0	0.0	0.009
100717.9	49749.2	4757.9	YM-8	350.0	0.0	180.0	195.0	200.0	0.0	0.019
100717.9	49749.2	4752.9	YM-8	350.0	0.0	180.0	200.0	205.0	0.0	0.012
100717.9	49749.2	4747.9	YM-8	350.0	0.0	180.0	205.0	210.0	0.0	0.005
100717.9	49749.2	4742.9	YM-8	350.0	0.0	180.0	210.0	215.0	0.0	0.019
100717.9	49749.2	4737.9	YM-8	350.0	0.0	180.0	215.0	220.0	0.0	0.010
100717.9	49749.2	4732.9	YM-8	350.0	0.0	180.0	220.0	225.0	0.0	0.004
100717.9	49749.2	4727.9	YM-8	350.0	0.0	180.0	225.0	230.0	0.0	0.047

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100717.9	49749.2	4722.9	YM-8	350.0	0.0	180.0	230.0	235.0	0.0	0.044
100717.9	49749.2	4717.9	YM-8	350.0	0.0	180.0	235.0	240.0	0.0	0.029
100717.9	49749.2	4712.9	YM-8	350.0	0.0	180.0	240.0	245.0	0.0	0.018
100717.9	49749.2	4707.9	YM-8	350.0	0.0	180.0	245.0	250.0	0.0	0.013
100717.9	49749.2	4702.9	YM-8	350.0	0.0	180.0	250.0	255.0	0.0	0.048
100717.9	49749.2	4697.9	YM-8	350.0	0.0	180.0	255.0	260.0	0.0	0.087
100717.9	49749.2	4692.9	YM-8	350.0	0.0	180.0	260.0	265.0	0.0	0.063
100717.9	49749.2	4687.9	YM-8	350.0	0.0	180.0	265.0	270.0	0.0	0.023
100717.9	49749.2	4682.9	YM-8	350.0	0.0	180.0	270.0	275.0	0.0	0.037
100717.9	49749.2	4677.9	YM-8	350.0	0.0	180.0	275.0	280.0	0.0	0.004
100717.9	49749.2	4672.9	YM-8	350.0	0.0	180.0	280.0	285.0	0.0	0.005
100717.9	49749.2	4667.9	YM-8	350.0	0.0	180.0	285.0	290.0	0.0	0.002
100717.9	49749.2	4662.9	YM-8	350.0	0.0	180.0	290.0	295.0	0.0	0.003
100717.9	49749.2	4657.9	YM-8	350.0	0.0	180.0	295.0	300.0	0.0	0.004
100717.9	49749.2	4652.9	YM-8	350.0	0.0	180.0	300.0	305.0	0.0	0.004
100717.9	49749.2	4647.9	YM-8	350.0	0.0	180.0	305.0	310.0	0.0	0.003
100717.9	49749.2	4642.9	YM-8	350.0	0.0	180.0	310.0	315.0	0.0	0.005
100717.9	49749.2	4637.9	YM-8	350.0	0.0	180.0	315.0	320.0	0.0	0.003
100717.9	49749.2	4632.9	YM-8	350.0	0.0	180.0	320.0	325.0	0.0	0.005
100717.9	49749.2	4627.9	YM-8	350.0	0.0	180.0	325.0	330.0	0.0	0.004
100717.9	49749.2	4622.9	YM-8	350.0	0.0	180.0	330.0	335.0	0.0	0.003
100717.9	49749.2	4617.9	YM-8	350.0	0.0	180.0	335.0	340.0	0.0	0.005
100717.9	49749.2	4612.9	YM-8	350.0	0.0	180.0	340.0	345.0	0.0	0.002
100717.9	49749.2	4607.9	YM-8	350.0	0.0	180.0	345.0	350.0	0.0	0.002

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100734.8	49577.2	4930.2	YM-9	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100734.8	49577.2	4925.2	YM-9	350.0	0.0	180.0	0.0	5.0	0.0	0.003
100734.8	49577.2	4920.2	YM-9	350.0	0.0	180.0	5.0	10.0	0.0	0.005
100734.8	49577.2	4915.2	YM-9	350.0	0.0	180.0	10.0	15.0	0.0	0.004
100734.8	49577.2	4910.2	YM-9	350.0	0.0	180.0	15.0	20.0	0.0	0.007
100734.8	49577.2	4905.2	YM-9	350.0	0.0	180.0	20.0	25.0	0.0	0.017
100734.8	49577.2	4900.2	YM-9	350.0	0.0	180.0	25.0	30.0	0.0	0.009
100734.8	49577.2	4895.2	YM-9	350.0	0.0	180.0	30.0	35.0	0.0	0.003
100734.8	49577.2	4890.2	YM-9	350.0	0.0	180.0	35.0	40.0	0.0	0.034
100734.8	49577.2	4885.2	YM-9	350.0	0.0	180.0	40.0	45.0	0.0	0.015
100734.8	49577.2	4880.2	YM-9	350.0	0.0	180.0	45.0	50.0	0.0	0.014
100734.8	49577.2	4875.2	YM-9	350.0	0.0	180.0	50.0	55.0	0.0	0.005
100734.8	49577.2	4870.2	YM-9	350.0	0.0	180.0	55.0	60.0	0.0	0.005
100734.8	49577.2	4865.2	YM-9	350.0	0.0	180.0	60.0	65.0	0.0	0.003
100734.8	49577.2	4860.2	YM-9	350.0	0.0	180.0	65.0	70.0	0.0	0.010
100734.8	49577.2	4855.2	YM-9	350.0	0.0	180.0	70.0	75.0	0.0	0.004
100734.8	49577.2	4850.2	YM-9	350.0	0.0	180.0	75.0	80.0	0.0	0.001
100734.8	49577.2	4845.2	YM-9	350.0	0.0	180.0	80.0	85.0	0.0	0.014
100734.8	49577.2	4840.2	YM-9	350.0	0.0	180.0	85.0	90.0	0.0	0.032
100734.8	49577.2	4835.2	YM-9	350.0	0.0	180.0	90.0	95.0	0.0	0.005
100734.8	49577.2	4830.2	YM-9	350.0	0.0	180.0	95.0	100.0	0.0	0.004
100734.8	49577.2	4825.2	YM-9	350.0	0.0	180.0	100.0	105.0	0.0	0.010
100734.8	49577.2	4820.2	YM-9	350.0	0.0	180.0	105.0	110.0	0.0	0.006
100734.8	49577.2	4815.2	YM-9	350.0	0.0	180.0	110.0	115.0	0.0	0.007
100734.8	49577.2	4810.2	YM-9	350.0	0.0	180.0	115.0	120.0	0.0	0.005
100734.8	49577.2	4805.2	YM-9	350.0	0.0	180.0	120.0	125.0	0.0	0.003
100734.8	49577.2	4800.2	YM-9	350.0	0.0	180.0	125.0	130.0	0.0	0.002
100734.8	49577.2	4795.2	YM-9	350.0	0.0	180.0	130.0	135.0	0.0	0.004
100734.8	49577.2	4790.2	YM-9	350.0	0.0	180.0	135.0	140.0	0.0	0.004
100734.8	49577.2	4785.2	YM-9	350.0	0.0	180.0	140.0	145.0	0.0	0.003
100734.8	49577.2	4780.2	YM-9	350.0	0.0	180.0	145.0	150.0	0.0	0.003
100734.8	49577.2	4775.2	YM-9	350.0	0.0	180.0	150.0	155.0	0.0	0.004
100734.8	49577.2	4770.2	YM-9	350.0	0.0	180.0	155.0	160.0	0.0	0.002
100734.8	49577.2	4765.2	YM-9	350.0	0.0	180.0	160.0	165.0	0.0	0.001
100734.8	49577.2	4760.2	YM-9	350.0	0.0	180.0	165.0	170.0	0.0	0.001
100734.8	49577.2	4755.2	YM-9	350.0	0.0	180.0	170.0	175.0	0.0	0.005
100734.8	49577.2	4750.2	YM-9	350.0	0.0	180.0	175.0	180.0	0.0	0.010
100734.8	49577.2	4745.2	YM-9	350.0	0.0	180.0	180.0	185.0	0.0	0.000
100734.8	49577.2	4740.2	YM-9	350.0	0.0	180.0	185.0	190.0	0.0	0.000
100734.8	49577.2	4735.2	YM-9	350.0	0.0	180.0	190.0	195.0	0.0	0.009
100734.8	49577.2	4730.2	YM-9	350.0	0.0	180.0	195.0	200.0	0.0	0.000
100734.8	49577.2	4725.2	YM-9	350.0	0.0	180.0	200.0	205.0	0.0	0.009
100734.8	49577.2	4720.2	YM-9	350.0	0.0	180.0	205.0	210.0	0.0	0.000
100734.8	49577.2	4715.2	YM-9	350.0	0.0	180.0	210.0	215.0	0.0	0.000
100734.8	49577.2	4710.2	YM-9	350.0	0.0	180.0	215.0	220.0	0.0	0.010
100734.8	49577.2	4705.2	YM-9	350.0	0.0	180.0	220.0	225.0	0.0	0.002
100734.8	49577.2	4700.2	YM-9	350.0	0.0	180.0	225.0	230.0	0.0	0.003

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100734.8	49577.2	4695.2	YM-9	350.0	0.0	180.0	230.0	235.0	0.0	0.002
100734.8	49577.2	4690.2	YM-9	350.0	0.0	180.0	235.0	240.0	0.0	0.018
100734.8	49577.2	4685.2	YM-9	350.0	0.0	180.0	240.0	245.0	0.0	0.007
100734.8	49577.2	4680.2	YM-9	350.0	0.0	180.0	245.0	250.0	0.0	0.004
100734.8	49577.2	4675.2	YM-9	350.0	0.0	180.0	250.0	255.0	0.0	0.004
100734.8	49577.2	4670.2	YM-9	350.0	0.0	180.0	255.0	260.0	0.0	0.003
100734.8	49577.2	4665.2	YM-9	350.0	0.0	180.0	260.0	265.0	0.0	0.002
100734.8	49577.2	4660.2	YM-9	350.0	0.0	180.0	265.0	270.0	0.0	0.002
100734.8	49577.2	4655.2	YM-9	350.0	0.0	180.0	270.0	275.0	0.0	0.006
100734.8	49577.2	4650.2	YM-9	350.0	0.0	180.0	275.0	280.0	0.0	0.012
100734.8	49577.2	4645.2	YM-9	350.0	0.0	180.0	280.0	285.0	0.0	0.010
100734.8	49577.2	4640.2	YM-9	350.0	0.0	180.0	285.0	290.0	0.0	0.017
100734.8	49577.2	4635.2	YM-9	350.0	0.0	180.0	290.0	295.0	0.0	0.027
100734.8	49577.2	4630.2	YM-9	350.0	0.0	180.0	295.0	300.0	0.0	0.087
100734.8	49577.2	4625.2	YM-9	350.0	0.0	180.0	300.0	305.0	0.0	0.061
100734.8	49577.2	4620.2	YM-9	350.0	0.0	180.0	305.0	310.0	0.0	0.046
100734.8	49577.2	4615.2	YM-9	350.0	0.0	180.0	310.0	315.0	0.0	0.020
100734.8	49577.2	4610.2	YM-9	350.0	0.0	180.0	315.0	320.0	0.0	0.006
100734.8	49577.2	4605.2	YM-9	350.0	0.0	180.0	320.0	325.0	0.0	0.009
100734.8	49577.2	4600.2	YM-9	350.0	0.0	180.0	325.0	330.0	0.0	0.006
100734.8	49577.2	4595.2	YM-9	350.0	0.0	180.0	330.0	335.0	0.0	0.006
100734.8	49577.2	4590.2	YM-9	350.0	0.0	180.0	335.0	340.0	0.0	0.005
100734.8	49577.2	4585.2	YM-9	350.0	0.0	180.0	340.0	345.0	0.0	0.005
100734.8	49577.2	4580.2	YM-9	350.0	0.0	180.0	345.0	350.0	0.0	0.004

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100177.0	49171.1	4893.9	YM-10	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100177.0	49171.1	4888.9	YM-10	0.0	0.0	180.0	0.0	5.0	0.0	0.004
100177.0	49171.1	4883.9	YM-10	0.0	0.0	180.0	5.0	10.0	0.0	0.002
100177.0	49171.1	4878.9	YM-10	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100177.0	49171.1	4873.9	YM-10	0.0	0.0	180.0	15.0	20.0	0.0	0.004
100177.0	49171.1	4868.9	YM-10	0.0	0.0	180.0	20.0	25.0	0.0	0.000
100177.0	49171.1	4863.9	YM-10	0.0	0.0	180.0	25.0	30.0	0.0	0.003
100177.0	49171.1	4858.9	YM-10	0.0	0.0	180.0	30.0	35.0	0.0	0.000
100177.0	49171.1	4853.9	YM-10	0.0	0.0	180.0	35.0	40.0	0.0	0.001
100177.0	49171.1	4848.9	YM-10	0.0	0.0	180.0	40.0	45.0	0.0	0.003
100177.0	49171.1	4843.9	YM-10	0.0	0.0	180.0	45.0	50.0	0.0	0.028
100177.0	49171.1	4838.9	YM-10	0.0	0.0	180.0	50.0	55.0	0.0	0.001
100177.0	49171.1	4833.9	YM-10	0.0	0.0	180.0	55.0	60.0	0.0	0.002
100177.0	49171.1	4828.9	YM-10	0.0	0.0	180.0	60.0	65.0	0.0	0.007
100177.0	49171.1	4823.9	YM-10	0.0	0.0	180.0	65.0	70.0	0.0	0.002
100177.0	49171.1	4818.9	YM-10	0.0	0.0	180.0	70.0	75.0	0.0	0.008
100177.0	49171.1	4813.9	YM-10	0.0	0.0	180.0	75.0	80.0	0.0	0.005
100177.0	49171.1	4808.9	YM-10	0.0	0.0	180.0	80.0	85.0	0.0	0.004
100177.0	49171.1	4803.9	YM-10	0.0	0.0	180.0	85.0	90.0	0.0	0.006
100177.0	49171.1	4798.9	YM-10	0.0	0.0	180.0	90.0	95.0	0.0	0.007
100177.0	49171.1	4793.9	YM-10	0.0	0.0	180.0	95.0	100.0	0.0	0.003
100177.0	49171.1	4788.9	YM-10	0.0	0.0	180.0	100.0	105.0	0.0	0.022
100177.0	49171.1	4778.9	YM-10	0.0	0.0	180.0	105.0	115.0	0.0	0.003
100177.0	49171.1	4773.9	YM-10	0.0	0.0	180.0	115.0	120.0	0.0	0.004
100177.0	49171.1	4768.9	YM-10	0.0	0.0	180.0	120.0	125.0	0.0	0.002
100177.0	49171.1	4763.9	YM-10	0.0	0.0	180.0	125.0	130.0	0.0	0.003
100177.0	49171.1	4758.9	YM-10	0.0	0.0	180.0	130.0	135.0	0.0	0.013
100177.0	49171.1	4753.9	YM-10	0.0	0.0	180.0	135.0	140.0	0.0	0.056
100177.0	49171.1	4748.9	YM-10	0.0	0.0	180.0	140.0	145.0	0.0	0.005
100177.0	49171.1	4743.9	YM-10	0.0	0.0	180.0	145.0	150.0	0.0	0.093
100177.0	49171.1	4738.9	YM-10	0.0	0.0	180.0	150.0	155.0	0.0	0.004
100177.0	49171.1	4733.9	YM-10	0.0	0.0	180.0	155.0	160.0	0.0	0.007
100177.0	49171.1	4728.9	YM-10	0.0	0.0	180.0	160.0	165.0	0.0	0.005
100177.0	49171.1	4723.9	YM-10	0.0	0.0	180.0	165.0	170.0	0.0	0.036
100177.0	49171.1	4718.9	YM-10	0.0	0.0	180.0	170.0	175.0	0.0	0.013
100177.0	49171.1	4713.9	YM-10	0.0	0.0	180.0	175.0	180.0	0.0	0.012
100177.0	49171.1	4708.9	YM-10	0.0	0.0	180.0	180.0	185.0	0.0	0.008
100177.0	49171.1	4703.9	YM-10	0.0	0.0	180.0	185.0	190.0	0.0	0.005
100177.0	49171.1	4698.9	YM-10	0.0	0.0	180.0	190.0	195.0	0.0	0.017
100177.0	49171.1	4693.9	YM-10	0.0	0.0	180.0	195.0	200.0	0.0	0.015
100177.0	49171.1	4688.9	YM-10	0.0	0.0	180.0	200.0	205.0	0.0	0.058
100177.0	49171.1	4683.9	YM-10	0.0	0.0	180.0	205.0	210.0	0.0	0.017
100177.0	49171.1	4678.9	YM-10	0.0	0.0	180.0	210.0	215.0	0.0	0.034
100177.0	49171.1	4673.9	YM-10	0.0	0.0	180.0	215.0	220.0	0.0	0.020
100177.0	49171.1	4668.9	YM-10	0.0	0.0	180.0	220.0	225.0	0.0	0.041
100177.0	49171.1	4663.9	YM-10	0.0	0.0	180.0	225.0	230.0	0.0	0.005
100177.0	49171.1	4658.9	YM-10	0.0	0.0	180.0	230.0	235.0	0.0	0.010

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100177.0	49171.1	4653.9	YM-10	0.0	0.0	180.0	235.0	240.0	0.0	0.012
100177.0	49171.1	4648.9	YM-10	0.0	0.0	180.0	240.0	245.0	0.0	0.003
100177.0	49171.1	4643.9	YM-10	0.0	0.0	180.0	245.0	250.0	0.0	0.004
100177.0	49171.1	4638.9	YM-10	0.0	0.0	180.0	250.0	255.0	0.0	0.019
100177.0	49171.1	4633.9	YM-10	0.0	0.0	180.0	255.0	260.0	0.0	0.004
100177.0	49171.1	4628.9	YM-10	0.0	0.0	180.0	260.0	265.0	0.0	0.005
100177.0	49171.1	4623.9	YM-10	0.0	0.0	180.0	265.0	270.0	0.0	0.004
100177.0	49171.1	4618.9	YM-10	0.0	0.0	180.0	270.0	275.0	0.0	0.005
100177.0	49171.1	4613.9	YM-10	0.0	0.0	180.0	275.0	280.0	0.0	0.003
100177.0	49171.1	4608.9	YM-10	0.0	0.0	180.0	280.0	285.0	0.0	0.028
100177.0	49171.1	4603.9	YM-10	0.0	0.0	180.0	285.0	290.0	0.0	0.003
100177.0	49171.1	4598.9	YM-10	0.0	0.0	180.0	290.0	295.0	0.0	0.003
100177.0	49171.1	4593.9	YM-10	0.0	0.0	180.0	295.0	300.0	0.0	0.003

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
99998.0	48983.2	4874.0	YM-11	0.0	0.0	0.0	0.0	0.0	0.0	0.000
99998.0	48983.2	4869.0	YM-11	0.0	0.0	180.0	0.0	5.0	0.0	0.002
99998.0	48983.2	4864.0	YM-11	0.0	0.0	180.0	5.0	10.0	0.0	0.001
99998.0	48983.2	4859.0	YM-11	0.0	0.0	180.0	10.0	15.0	0.0	0.002
99998.0	48983.2	4854.0	YM-11	0.0	0.0	180.0	15.0	20.0	0.0	0.003
99998.0	48983.2	4849.0	YM-11	0.0	0.0	180.0	20.0	25.0	0.0	0.003
99998.0	48983.2	4844.0	YM-11	0.0	0.0	180.0	25.0	30.0	0.0	0.001
99998.0	48983.2	4839.0	YM-11	0.0	0.0	180.0	30.0	35.0	0.0	0.004
99998.0	48983.2	4834.0	YM-11	0.0	0.0	180.0	35.0	40.0	0.0	0.006
99998.0	48983.2	4829.0	YM-11	0.0	0.0	180.0	40.0	45.0	0.0	0.001
99998.0	48983.2	4824.0	YM-11	0.0	0.0	180.0	45.0	50.0	0.0	0.003
99998.0	48983.2	4819.0	YM-11	0.0	0.0	180.0	50.0	55.0	0.0	0.003
99998.0	48983.2	4814.0	YM-11	0.0	0.0	180.0	55.0	60.0	0.0	0.002
99998.0	48983.2	4809.0	YM-11	0.0	0.0	180.0	60.0	65.0	0.0	0.003
99998.0	48983.2	4804.0	YM-11	0.0	0.0	180.0	65.0	70.0	0.0	0.000
99998.0	48983.2	4799.0	YM-11	0.0	0.0	180.0	70.0	75.0	0.0	0.001
99998.0	48983.2	4794.0	YM-11	0.0	0.0	180.0	75.0	80.0	0.0	0.005
99998.0	48983.2	4789.0	YM-11	0.0	0.0	180.0	80.0	85.0	0.0	0.002
99998.0	48983.2	4784.0	YM-11	0.0	0.0	180.0	85.0	90.0	0.0	0.003
99998.0	48983.2	4779.0	YM-11	0.0	0.0	180.0	90.0	95.0	0.0	0.017
99998.0	48983.2	4774.0	YM-11	0.0	0.0	180.0	95.0	100.0	0.0	0.001
99998.0	48983.2	4769.0	YM-11	0.0	0.0	180.0	100.0	105.0	0.0	0.001
99998.0	48983.2	4764.0	YM-11	0.0	0.0	180.0	105.0	110.0	0.0	0.002
99998.0	48983.2	4759.0	YM-11	0.0	0.0	180.0	110.0	115.0	0.0	0.002
99998.0	48983.2	4754.0	YM-11	0.0	0.0	180.0	115.0	120.0	0.0	0.002
99998.0	48983.2	4749.0	YM-11	0.0	0.0	180.0	120.0	125.0	0.0	0.000
99998.0	48983.2	4744.0	YM-11	0.0	0.0	180.0	125.0	130.0	0.0	0.001
99998.0	48983.2	4739.0	YM-11	0.0	0.0	180.0	130.0	135.0	0.0	0.001
99998.0	48983.2	4734.0	YM-11	0.0	0.0	180.0	135.0	140.0	0.0	0.001
99998.0	48983.2	4729.0	YM-11	0.0	0.0	180.0	140.0	145.0	0.0	0.001
99998.0	48983.2	4724.0	YM-11	0.0	0.0	180.0	145.0	150.0	0.0	0.004
99998.0	48983.2	4719.0	YM-11	0.0	0.0	180.0	150.0	155.0	0.0	0.001
99998.0	48983.2	4714.0	YM-11	0.0	0.0	180.0	155.0	160.0	0.0	0.002
99998.0	48983.2	4709.0	YM-11	0.0	0.0	180.0	160.0	165.0	0.0	0.004
99998.0	48983.2	4704.0	YM-11	0.0	0.0	180.0	165.0	170.0	0.0	0.004
99998.0	48983.2	4699.0	YM-11	0.0	0.0	180.0	170.0	175.0	0.0	0.009
99998.0	48983.2	4694.0	YM-11	0.0	0.0	180.0	175.0	180.0	0.0	0.016
99998.0	48983.2	4689.0	YM-11	0.0	0.0	180.0	180.0	185.0	0.0	0.019
99998.0	48983.2	4684.0	YM-11	0.0	0.0	180.0	185.0	190.0	0.0	0.015
99998.0	48983.2	4679.0	YM-11	0.0	0.0	180.0	190.0	195.0	0.0	0.045
99998.0	48983.2	4674.0	YM-11	0.0	0.0	180.0	195.0	200.0	0.0	0.036
99998.0	48983.2	4669.0	YM-11	0.0	0.0	180.0	200.0	205.0	0.0	0.018
99998.0	48983.2	4664.0	YM-11	0.0	0.0	180.0	205.0	210.0	0.0	0.017
99998.0	48983.2	4659.0	YM-11	0.0	0.0	180.0	210.0	215.0	0.0	0.034
99998.0	48983.2	4654.0	YM-11	0.0	0.0	180.0	215.0	220.0	0.0	0.083
99998.0	48983.2	4649.0	YM-11	0.0	0.0	180.0	220.0	225.0	0.0	0.063
99998.0	48983.2	4644.0	YM-11	0.0	0.0	180.0	225.0	230.0	0.0	0.061

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
99998.0	48983.2	4639.0	YM-11	0.0	0.0	180.0	230.0	235.0	0.0	0.121
99998.0	48983.2	4634.0	YM-11	0.0	0.0	180.0	235.0	240.0	0.0	0.103
99998.0	48983.2	4629.0	YM-11	0.0	0.0	180.0	240.0	245.0	0.0	0.009
99998.0	48983.2	4624.0	YM-11	0.0	0.0	180.0	245.0	250.0	0.0	0.005
99998.0	48983.2	4619.0	YM-11	0.0	0.0	180.0	250.0	255.0	0.0	0.000
99998.0	48983.2	4614.0	YM-11	0.0	0.0	180.0	255.0	260.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100356.5	49788.4	5073.6	YM-12	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100356.5	49788.4	5068.6	YM-12	0.0	0.0	180.0	0.0	5.0	0.0	0.008
100356.5	49788.4	5063.6	YM-12	0.0	0.0	180.0	5.0	10.0	0.0	0.003
100356.5	49788.4	5058.6	YM-12	0.0	0.0	180.0	10.0	15.0	0.0	0.006
100356.5	49788.4	5053.6	YM-12	0.0	0.0	180.0	15.0	20.0	0.0	0.004
100356.5	49788.4	5048.6	YM-12	0.0	0.0	180.0	20.0	25.0	0.0	0.003
100356.5	49788.4	5043.6	YM-12	0.0	0.0	180.0	25.0	30.0	0.0	0.004
100356.5	49788.4	5038.6	YM-12	0.0	0.0	180.0	30.0	35.0	0.0	0.003
100356.5	49788.4	5033.6	YM-12	0.0	0.0	180.0	35.0	40.0	0.0	0.002
100356.5	49788.4	5028.6	YM-12	0.0	0.0	180.0	40.0	45.0	0.0	0.021
100356.5	49788.4	5023.6	YM-12	0.0	0.0	180.0	45.0	50.0	0.0	0.018
100356.5	49788.4	5018.6	YM-12	0.0	0.0	180.0	50.0	55.0	0.0	0.001
100356.5	49788.4	5013.6	YM-12	0.0	0.0	180.0	55.0	60.0	0.0	0.016
100356.5	49788.4	5008.6	YM-12	0.0	0.0	180.0	60.0	65.0	0.0	0.006
100356.5	49788.4	5003.6	YM-12	0.0	0.0	180.0	65.0	70.0	0.0	0.003
100356.5	49788.4	4998.6	YM-12	0.0	0.0	180.0	70.0	75.0	0.0	0.004
100356.5	49788.4	4993.6	YM-12	0.0	0.0	180.0	75.0	80.0	0.0	0.016
100356.5	49788.4	4988.6	YM-12	0.0	0.0	180.0	80.0	85.0	0.0	0.011
100356.5	49788.4	4983.6	YM-12	0.0	0.0	180.0	85.0	90.0	0.0	0.003
100356.5	49788.4	4978.6	YM-12	0.0	0.0	180.0	90.0	95.0	0.0	0.007
100356.5	49788.4	4973.6	YM-12	0.0	0.0	180.0	95.0	100.0	0.0	0.004
100356.5	49788.4	4968.6	YM-12	0.0	0.0	180.0	100.0	105.0	0.0	0.004
100356.5	49788.4	4963.6	YM-12	0.0	0.0	180.0	105.0	110.0	0.0	0.003
100356.5	49788.4	4958.6	YM-12	0.0	0.0	180.0	110.0	115.0	0.0	0.004
100356.5	49788.4	4953.6	YM-12	0.0	0.0	180.0	115.0	120.0	0.0	0.016
100356.5	49788.4	4948.6	YM-12	0.0	0.0	180.0	120.0	125.0	0.0	0.022
100356.5	49788.4	4943.6	YM-12	0.0	0.0	180.0	125.0	130.0	0.0	0.094
100356.5	49788.4	4938.6	YM-12	0.0	0.0	180.0	130.0	135.0	0.0	0.013
100356.5	49788.4	4933.6	YM-12	0.0	0.0	180.0	135.0	140.0	0.0	0.004
100356.5	49788.4	4928.6	YM-12	0.0	0.0	180.0	140.0	145.0	0.0	0.007
100356.5	49788.4	4923.6	YM-12	0.0	0.0	180.0	145.0	150.0	0.0	0.005
100356.5	49788.4	4918.6	YM-12	0.0	0.0	180.0	150.0	155.0	0.0	0.013
100356.5	49788.4	4913.6	YM-12	0.0	0.0	180.0	155.0	160.0	0.0	0.068
100356.5	49788.4	4908.6	YM-12	0.0	0.0	180.0	160.0	165.0	0.0	0.021
100356.5	49788.4	4903.6	YM-12	0.0	0.0	180.0	165.0	170.0	0.0	0.096
100356.5	49788.4	4898.6	YM-12	0.0	0.0	180.0	170.0	175.0	0.0	0.031
100356.5	49788.4	4893.6	YM-12	0.0	0.0	180.0	175.0	180.0	0.0	0.074
100356.5	49788.4	4890.6	YM-12	0.0	0.0	180.0	180.0	183.0	0.0	0.008
100356.5	49788.4	4883.6	YM-12	0.0	0.0	180.0	183.0	190.0	0.0	-1.000
100356.5	49788.4	4878.6	YM-12	0.0	0.0	180.0	190.0	195.0	0.0	-1.000
100356.5	49788.4	4873.6	YM-12	0.0	0.0	180.0	195.0	200.0	0.0	0.018
100356.5	49788.4	4868.6	YM-12	0.0	0.0	180.0	200.0	205.0	0.0	0.049
100356.5	49788.4	4863.6	YM-12	0.0	0.0	180.0	205.0	210.0	0.0	0.025
100356.5	49788.4	4858.6	YM-12	0.0	0.0	180.0	210.0	215.0	0.0	0.045
100356.5	49788.4	4853.6	YM-12	0.0	0.0	180.0	215.0	220.0	0.0	0.040
100356.5	49788.4	4848.6	YM-12	0.0	0.0	180.0	220.0	225.0	0.0	0.024
100356.5	49788.4	4843.6	YM-12	0.0	0.0	180.0	225.0	230.0	0.0	0.015

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100356.5	49788.4	4838.6	YM-12	0.0	0.0	180.0	230.0	235.0	0.0	0.034
100356.5	49788.4	4833.6	YM-12	0.0	0.0	180.0	235.0	240.0	0.0	0.030

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
101099.2	49909.0	4810.1	YM-13	0.0	0.0	0.0	0.0	0.0	0.0	0.000
101099.2	49909.0	4805.1	YM-13	0.0	0.0	180.0	0.0	5.0	0.0	0.005
101099.2	49909.0	4800.1	YM-13	0.0	0.0	180.0	5.0	10.0	0.0	0.003
101099.2	49909.0	4795.1	YM-13	0.0	0.0	180.0	10.0	15.0	0.0	0.007
101099.2	49909.0	4790.1	YM-13	0.0	0.0	180.0	15.0	20.0	0.0	0.004
101099.2	49909.0	4785.1	YM-13	0.0	0.0	180.0	20.0	25.0	0.0	0.002
101099.2	49909.0	4780.1	YM-13	0.0	0.0	180.0	25.0	30.0	0.0	0.004
101099.2	49909.0	4775.1	YM-13	0.0	0.0	180.0	30.0	35.0	0.0	0.003
101099.2	49909.0	4770.1	YM-13	0.0	0.0	180.0	35.0	40.0	0.0	0.001
101099.2	49909.0	4765.1	YM-13	0.0	0.0	180.0	40.0	45.0	0.0	0.003
101099.2	49909.0	4760.1	YM-13	0.0	0.0	180.0	45.0	50.0	0.0	0.002
101099.2	49909.0	4755.1	YM-13	0.0	0.0	180.0	50.0	55.0	0.0	0.003
101099.2	49909.0	4750.1	YM-13	0.0	0.0	180.0	55.0	60.0	0.0	0.003
101099.2	49909.0	4745.1	YM-13	0.0	0.0	180.0	60.0	65.0	0.0	0.005
101099.2	49909.0	4740.1	YM-13	0.0	0.0	180.0	65.0	70.0	0.0	0.021
101099.2	49909.0	4735.1	YM-13	0.0	0.0	180.0	70.0	75.0	0.0	0.006
101099.2	49909.0	4730.1	YM-13	0.0	0.0	180.0	75.0	80.0	0.0	0.003
101099.2	49909.0	4725.1	YM-13	0.0	0.0	180.0	80.0	85.0	0.0	0.003
101099.2	49909.0	4720.1	YM-13	0.0	0.0	180.0	85.0	90.0	0.0	0.004
101099.2	49909.0	4715.1	YM-13	0.0	0.0	180.0	90.0	95.0	0.0	0.009
101099.2	49909.0	4710.1	YM-13	0.0	0.0	180.0	95.0	100.0	0.0	0.007
101099.2	49909.0	4705.1	YM-13	0.0	0.0	180.0	100.0	105.0	0.0	0.004
101099.2	49909.0	4700.1	YM-13	0.0	0.0	180.0	105.0	110.0	0.0	0.003
101099.2	49909.0	4695.1	YM-13	0.0	0.0	180.0	110.0	115.0	0.0	0.003
101099.2	49909.0	4690.1	YM-13	0.0	0.0	180.0	115.0	120.0	0.0	0.004
101099.2	49909.0	4685.1	YM-13	0.0	0.0	180.0	120.0	125.0	0.0	0.006
101099.2	49909.0	4680.1	YM-13	0.0	0.0	180.0	125.0	130.0	0.0	0.005
101099.2	49909.0	4675.1	YM-13	0.0	0.0	180.0	130.0	135.0	0.0	0.007
101099.2	49909.0	4670.1	YM-13	0.0	0.0	180.0	135.0	140.0	0.0	0.067
101099.2	49909.0	4665.1	YM-13	0.0	0.0	180.0	140.0	145.0	0.0	0.008
101099.2	49909.0	4660.1	YM-13	0.0	0.0	180.0	145.0	150.0	0.0	0.004
101099.2	49909.0	4655.1	YM-13	0.0	0.0	180.0	150.0	155.0	0.0	0.005
101099.2	49909.0	4650.1	YM-13	0.0	0.0	180.0	155.0	160.0	0.0	0.003
101099.2	49909.0	4645.1	YM-13	0.0	0.0	180.0	160.0	165.0	0.0	0.005
101099.2	49909.0	4640.1	YM-13	0.0	0.0	180.0	165.0	170.0	0.0	0.003
101099.2	49909.0	4635.1	YM-13	0.0	0.0	180.0	170.0	175.0	0.0	0.008
101099.2	49909.0	4630.1	YM-13	0.0	0.0	180.0	175.0	180.0	0.0	0.006
101099.2	49909.0	4625.1	YM-13	0.0	0.0	180.0	180.0	185.0	0.0	0.021
101099.2	49909.0	4620.1	YM-13	0.0	0.0	180.0	185.0	190.0	0.0	0.023
101099.2	49909.0	4615.1	YM-13	0.0	0.0	180.0	190.0	195.0	0.0	0.014
101099.2	49909.0	4610.1	YM-13	0.0	0.0	180.0	195.0	200.0	0.0	0.030
101099.2	49909.0	4605.1	YM-13	0.0	0.0	180.0	200.0	205.0	0.0	0.027
101099.2	49909.0	4600.1	YM-13	0.0	0.0	180.0	205.0	210.0	0.0	0.019
101099.2	49909.0	4595.1	YM-13	0.0	0.0	180.0	210.0	215.0	0.0	0.004
101099.2	49909.0	4590.1	YM-13	0.0	0.0	180.0	215.0	220.0	0.0	0.005
101099.2	49909.0	4585.1	YM-13	0.0	0.0	180.0	220.0	225.0	0.0	0.003
101099.2	49909.0	4580.1	YM-13	0.0	0.0	180.0	225.0	230.0	0.0	0.008

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
101099.2	49909.0	4575.1	YM-13	0.0	0.0	180.0	230.0	235.0	0.0	0.004
101099.2	49909.0	4570.1	YM-13	0.0	0.0	180.0	235.0	240.0	0.0	0.003
101099.2	49909.0	4565.1	YM-13	0.0	0.0	180.0	240.0	245.0	0.0	0.003
101099.2	49909.0	4560.1	YM-13	0.0	0.0	180.0	245.0	250.0	0.0	0.002
101099.2	49909.0	4555.1	YM-13	0.0	0.0	180.0	250.0	255.0	0.0	0.004
101099.2	49909.0	4550.1	YM-13	0.0	0.0	180.0	255.0	260.0	0.0	0.008
101099.2	49909.0	4545.1	YM-13	0.0	0.0	180.0	260.0	265.0	0.0	0.005
101099.2	49909.0	4540.1	YM-13	0.0	0.0	180.0	265.0	270.0	0.0	0.027
101099.2	49909.0	4535.1	YM-13	0.0	0.0	180.0	270.0	275.0	0.0	0.004
101099.2	49909.0	4530.1	YM-13	0.0	0.0	180.0	275.0	280.0	0.0	0.003

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100110.1	49780.1	5050.5	YM-14	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100110.1	49780.1	5045.5	YM-14	0.0	0.0	180.0	0.0	5.0	0.0	0.003
100110.1	49780.1	5040.5	YM-14	0.0	0.0	180.0	5.0	10.0	0.0	0.004
100110.1	49780.1	5035.5	YM-14	0.0	0.0	180.0	10.0	15.0	0.0	0.008
100110.1	49780.1	5030.5	YM-14	0.0	0.0	180.0	15.0	20.0	0.0	0.038
100110.1	49780.1	5025.5	YM-14	0.0	0.0	180.0	20.0	25.0	0.0	0.013
100110.1	49780.1	5020.5	YM-14	0.0	0.0	180.0	25.0	30.0	0.0	0.019
100110.1	49780.1	5015.5	YM-14	0.0	0.0	180.0	30.0	35.0	0.0	0.015
100110.1	49780.1	5010.5	YM-14	0.0	0.0	180.0	35.0	40.0	0.0	0.020
100110.1	49780.1	5005.5	YM-14	0.0	0.0	180.0	40.0	45.0	0.0	0.019
100110.1	49780.1	5000.5	YM-14	0.0	0.0	180.0	45.0	50.0	0.0	0.033
100110.1	49780.1	4995.5	YM-14	0.0	0.0	180.0	50.0	55.0	0.0	0.018
100110.1	49780.1	4990.5	YM-14	0.0	0.0	180.0	55.0	60.0	0.0	0.016
100110.1	49780.1	4985.5	YM-14	0.0	0.0	180.0	60.0	65.0	0.0	0.072
100110.1	49780.1	4980.5	YM-14	0.0	0.0	180.0	65.0	70.0	0.0	0.136
100110.1	49780.1	4975.5	YM-14	0.0	0.0	180.0	70.0	75.0	0.0	0.101
100110.1	49780.1	4970.5	YM-14	0.0	0.0	180.0	75.0	80.0	0.0	0.049
100110.1	49780.1	4965.5	YM-14	0.0	0.0	180.0	80.0	85.0	0.0	0.031
100110.1	49780.1	4960.5	YM-14	0.0	0.0	180.0	85.0	90.0	0.0	0.022
100110.1	49780.1	4955.5	YM-14	0.0	0.0	180.0	90.0	95.0	0.0	0.010
100110.1	49780.1	4950.5	YM-14	0.0	0.0	180.0	95.0	100.0	0.0	0.010
100110.1	49780.1	4945.5	YM-14	0.0	0.0	180.0	100.0	105.0	0.0	0.005
100110.1	49780.1	4940.5	YM-14	0.0	0.0	180.0	105.0	110.0	0.0	0.003
100110.1	49780.1	4935.5	YM-14	0.0	0.0	180.0	110.0	115.0	0.0	0.003
100110.1	49780.1	4930.5	YM-14	0.0	0.0	180.0	115.0	120.0	0.0	0.003
100110.1	49780.1	4925.5	YM-14	0.0	0.0	180.0	120.0	125.0	0.0	0.011
100110.1	49780.1	4920.5	YM-14	0.0	0.0	180.0	125.0	130.0	0.0	0.003
100110.1	49780.1	4915.5	YM-14	0.0	0.0	180.0	130.0	135.0	0.0	0.004
100110.1	49780.1	4910.5	YM-14	0.0	0.0	180.0	135.0	140.0	0.0	0.004
100110.1	49780.1	4905.5	YM-14	0.0	0.0	180.0	140.0	145.0	0.0	0.003
100110.1	49780.1	4900.5	YM-14	0.0	0.0	180.0	145.0	150.0	0.0	0.003
100110.1	49780.1	4895.5	YM-14	0.0	0.0	180.0	150.0	155.0	0.0	0.038
100110.1	49780.1	4890.5	YM-14	0.0	0.0	180.0	155.0	160.0	0.0	0.037

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100581.8	49765.5	5036.8	YM-15	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100581.8	49765.5	5031.8	YM-15	0.0	0.0	180.0	0.0	5.0	0.0	0.005
100581.8	49765.5	5026.8	YM-15	0.0	0.0	180.0	5.0	10.0	0.0	0.003
100581.8	49765.5	5021.8	YM-15	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100581.8	49765.5	5016.8	YM-15	0.0	0.0	180.0	15.0	20.0	0.0	0.004
100581.8	49765.5	5011.8	YM-15	0.0	0.0	180.0	20.0	25.0	0.0	0.002
100581.8	49765.5	5006.8	YM-15	0.0	0.0	180.0	25.0	30.0	0.0	0.048
100581.8	49765.5	5001.8	YM-15	0.0	0.0	180.0	30.0	35.0	0.0	0.013
100581.8	49765.5	4996.8	YM-15	0.0	0.0	180.0	35.0	40.0	0.0	0.003
100581.8	49765.5	4991.8	YM-15	0.0	0.0	180.0	40.0	45.0	0.0	0.008
100581.8	49765.5	4986.8	YM-15	0.0	0.0	180.0	45.0	50.0	0.0	0.063
100581.8	49765.5	4981.8	YM-15	0.0	0.0	180.0	50.0	55.0	0.0	0.010
100581.8	49765.5	4976.8	YM-15	0.0	0.0	180.0	55.0	60.0	0.0	0.011
100581.8	49765.5	4971.8	YM-15	0.0	0.0	180.0	60.0	65.0	0.0	0.015
100581.8	49765.5	4966.8	YM-15	0.0	0.0	180.0	65.0	70.0	0.0	0.065
100581.8	49765.5	4961.8	YM-15	0.0	0.0	180.0	70.0	75.0	0.0	0.007
100581.8	49765.5	4956.8	YM-15	0.0	0.0	180.0	75.0	80.0	0.0	0.004
100581.8	49765.5	4951.8	YM-15	0.0	0.0	180.0	80.0	85.0	0.0	0.004
100581.8	49765.5	4946.8	YM-15	0.0	0.0	180.0	85.0	90.0	0.0	0.003
100581.8	49765.5	4941.8	YM-15	0.0	0.0	180.0	90.0	95.0	0.0	0.047
100581.8	49765.5	4936.8	YM-15	0.0	0.0	180.0	95.0	100.0	0.0	0.003
100581.8	49765.5	4931.8	YM-15	0.0	0.0	180.0	100.0	105.0	0.0	0.005
100581.8	49765.5	4926.8	YM-15	0.0	0.0	180.0	105.0	110.0	0.0	0.005
100581.8	49765.5	4921.8	YM-15	0.0	0.0	180.0	110.0	115.0	0.0	0.005
100581.8	49765.5	4916.8	YM-15	0.0	0.0	180.0	115.0	120.0	0.0	0.010
100581.8	49765.5	4911.8	YM-15	0.0	0.0	180.0	120.0	125.0	0.0	0.004
100581.8	49765.5	4906.8	YM-15	0.0	0.0	180.0	125.0	130.0	0.0	0.012
100581.8	49765.5	4901.8	YM-15	0.0	0.0	180.0	130.0	135.0	0.0	0.006
100581.8	49765.5	4896.8	YM-15	0.0	0.0	180.0	135.0	140.0	0.0	0.003
100581.8	49765.5	4891.8	YM-15	0.0	0.0	180.0	140.0	145.0	0.0	0.132
100581.8	49765.5	4886.8	YM-15	0.0	0.0	180.0	145.0	150.0	0.0	0.068
100581.8	49765.5	4881.8	YM-15	0.0	0.0	180.0	150.0	155.0	0.0	0.022
100581.8	49765.5	4876.8	YM-15	0.0	0.0	180.0	155.0	160.0	0.0	0.004
100581.8	49765.5	4871.8	YM-15	0.0	0.0	180.0	160.0	165.0	0.0	0.048
100581.8	49765.5	4866.8	YM-15	0.0	0.0	180.0	165.0	170.0	0.0	0.005
100581.8	49765.5	4861.8	YM-15	0.0	0.0	180.0	170.0	175.0	0.0	0.008
100581.8	49765.5	4856.8	YM-15	0.0	0.0	180.0	175.0	180.0	0.0	0.013
100581.8	49765.5	4851.8	YM-15	0.0	0.0	180.0	180.0	185.0	0.0	0.074
100581.8	49765.5	4846.8	YM-15	0.0	0.0	180.0	185.0	190.0	0.0	0.012
100581.8	49765.5	4841.8	YM-15	0.0	0.0	180.0	190.0	195.0	0.0	0.017
100581.8	49765.5	4836.8	YM-15	0.0	0.0	180.0	195.0	200.0	0.0	0.021
100581.8	49765.5	4831.8	YM-15	0.0	0.0	180.0	200.0	205.0	0.0	0.016
100581.8	49765.5	4826.8	YM-15	0.0	0.0	180.0	205.0	210.0	0.0	0.096
100581.8	49765.5	4821.8	YM-15	0.0	0.0	180.0	210.0	215.0	0.0	0.034
100581.8	49765.5	4816.8	YM-15	0.0	0.0	180.0	215.0	220.0	0.0	0.025
100581.8	49765.5	4811.8	YM-15	0.0	0.0	180.0	220.0	225.0	0.0	0.029
100581.8	49765.5	4806.8	YM-15	0.0	0.0	180.0	225.0	230.0	0.0	0.008

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100581.8	49765.5	4801.8	YM-15	0.0	0.0	180.0	230.0	235.0	0.0	0.011
100581.8	49765.5	4796.8	YM-15	0.0	0.0	180.0	235.0	240.0	0.0	0.041
100581.8	49765.5	4791.8	YM-15	0.0	0.0	180.0	240.0	245.0	0.0	0.010
100581.8	49765.5	4786.8	YM-15	0.0	0.0	180.0	245.0	250.0	0.0	0.022
100581.8	49765.5	4781.8	YM-15	0.0	0.0	180.0	250.0	255.0	0.0	0.008
100581.8	49765.5	4776.8	YM-15	0.0	0.0	180.0	255.0	260.0	0.0	0.059
100581.8	49765.5	4771.8	YM-15	0.0	0.0	180.0	260.0	265.0	0.0	0.009
100581.8	49765.5	4766.8	YM-15	0.0	0.0	180.0	265.0	270.0	0.0	0.031
100581.8	49765.5	4761.8	YM-15	0.0	0.0	180.0	270.0	275.0	0.0	0.029
100581.8	49765.5	4756.8	YM-15	0.0	0.0	180.0	275.0	280.0	0.0	0.040
100581.8	49765.5	4751.8	YM-15	0.0	0.0	180.0	280.0	285.0	0.0	0.089
100581.8	49765.5	4746.8	YM-15	0.0	0.0	180.0	285.0	290.0	0.0	0.047
100581.8	49765.5	4741.8	YM-15	0.0	0.0	180.0	290.0	295.0	0.0	0.022
100581.8	49765.5	4736.8	YM-15	0.0	0.0	180.0	295.0	300.0	0.0	0.008
100581.8	49765.5	4731.8	YM-15	0.0	0.0	180.0	300.0	305.0	0.0	0.006
100581.8	49765.5	4726.8	YM-15	0.0	0.0	180.0	305.0	310.0	0.0	0.005
100581.8	49765.5	4721.8	YM-15	0.0	0.0	180.0	310.0	315.0	0.0	0.003
100581.8	49765.5	4716.8	YM-15	0.0	0.0	180.0	315.0	320.0	0.0	0.004
100581.8	49765.5	4711.8	YM-15	0.0	0.0	180.0	320.0	325.0	0.0	0.003
100581.8	49765.5	4706.8	YM-15	0.0	0.0	180.0	325.0	330.0	0.0	0.006
100581.8	49765.5	4701.8	YM-15	0.0	0.0	180.0	330.0	335.0	0.0	0.004
100581.8	49765.5	4696.8	YM-15	0.0	0.0	180.0	335.0	340.0	0.0	0.005
100581.8	49765.5	4691.8	YM-15	0.0	0.0	180.0	340.0	345.0	0.0	0.010
100581.8	49765.5	4686.8	YM-15	0.0	0.0	180.0	345.0	350.0	0.0	0.003

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100383.9	50017.0	5057.1	YM-16	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100383.9	50017.0	5052.1	YM-16	0.0	0.0	180.0	0.0	5.0	0.0	0.041
100383.9	50017.0	5047.1	YM-16	0.0	0.0	180.0	5.0	10.0	0.0	0.011
100383.9	50017.0	5042.1	YM-16	0.0	0.0	180.0	10.0	15.0	0.0	0.013
100383.9	50017.0	5037.1	YM-16	0.0	0.0	180.0	15.0	20.0	0.0	0.008
100383.9	50017.0	5032.1	YM-16	0.0	0.0	180.0	20.0	25.0	0.0	0.022
100383.9	50017.0	5027.1	YM-16	0.0	0.0	180.0	25.0	30.0	0.0	0.011
100383.9	50017.0	5022.1	YM-16	0.0	0.0	180.0	30.0	35.0	0.0	0.019
100383.9	50017.0	5017.1	YM-16	0.0	0.0	180.0	35.0	40.0	0.0	0.014
100383.9	50017.0	5012.1	YM-16	0.0	0.0	180.0	40.0	45.0	0.0	0.036
100383.9	50017.0	5007.1	YM-16	0.0	0.0	180.0	45.0	50.0	0.0	0.040
100383.9	50017.0	5002.1	YM-16	0.0	0.0	180.0	50.0	55.0	0.0	0.046
100383.9	50017.0	4997.1	YM-16	0.0	0.0	180.0	55.0	60.0	0.0	0.029
100383.9	50017.0	4992.1	YM-16	0.0	0.0	180.0	60.0	65.0	0.0	0.032
100383.9	50017.0	4987.1	YM-16	0.0	0.0	180.0	65.0	70.0	0.0	-1.000
100383.9	50017.0	4982.1	YM-16	0.0	0.0	180.0	70.0	75.0	0.0	0.039
100383.9	50017.0	4977.1	YM-16	0.0	0.0	180.0	75.0	80.0	0.0	0.053
100383.9	50017.0	4972.1	YM-16	0.0	0.0	180.0	80.0	85.0	0.0	-1.000
100383.9	50017.0	4967.1	YM-16	0.0	0.0	180.0	85.0	90.0	0.0	0.007
100383.9	50017.0	4962.1	YM-16	0.0	0.0	180.0	90.0	95.0	0.0	0.003
100383.9	50017.0	4957.1	YM-16	0.0	0.0	180.0	95.0	100.0	0.0	0.004
100383.9	50017.0	4952.1	YM-16	0.0	0.0	180.0	100.0	105.0	0.0	0.003
100383.9	50017.0	4947.1	YM-16	0.0	0.0	180.0	105.0	110.0	0.0	0.003
100383.9	50017.0	4942.1	YM-16	0.0	0.0	180.0	110.0	115.0	0.0	0.004
100383.9	50017.0	4937.1	YM-16	0.0	0.0	180.0	115.0	120.0	0.0	0.004
100383.9	50017.0	4932.1	YM-16	0.0	0.0	180.0	120.0	125.0	0.0	0.007
100383.9	50017.0	4927.1	YM-16	0.0	0.0	180.0	125.0	130.0	0.0	0.005
100383.9	50017.0	4922.1	YM-16	0.0	0.0	180.0	130.0	135.0	0.0	0.008
100383.9	50017.0	4917.1	YM-16	0.0	0.0	180.0	135.0	140.0	0.0	0.003
100383.9	50017.0	4912.1	YM-16	0.0	0.0	180.0	140.0	145.0	0.0	0.004
100383.9	50017.0	4907.1	YM-16	0.0	0.0	180.0	145.0	150.0	0.0	0.007

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100458.2	49405.8	5017.2	YM-17	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100458.2	49405.8	5012.2	YM-17	0.0	0.0	180.0	0.0	5.0	0.0	0.043
100458.2	49405.8	5007.2	YM-17	0.0	0.0	180.0	5.0	10.0	0.0	0.003
100458.2	49405.8	5002.2	YM-17	0.0	0.0	180.0	10.0	15.0	0.0	0.004
100458.2	49405.8	4997.2	YM-17	0.0	0.0	180.0	15.0	20.0	0.0	0.014
100458.2	49405.8	4992.2	YM-17	0.0	0.0	180.0	20.0	25.0	0.0	0.006
100458.2	49405.8	4987.2	YM-17	0.0	0.0	180.0	25.0	30.0	0.0	0.003
100458.2	49405.8	4982.2	YM-17	0.0	0.0	180.0	30.0	35.0	0.0	0.003
100458.2	49405.8	4977.2	YM-17	0.0	0.0	180.0	35.0	40.0	0.0	0.004
100458.2	49405.8	4972.2	YM-17	0.0	0.0	180.0	40.0	45.0	0.0	0.007
100458.2	49405.8	4967.2	YM-17	0.0	0.0	180.0	45.0	50.0	0.0	0.006
100458.2	49405.8	4962.2	YM-17	0.0	0.0	180.0	50.0	55.0	0.0	0.004
100458.2	49405.8	4957.2	YM-17	0.0	0.0	180.0	55.0	60.0	0.0	0.003
100458.2	49405.8	4952.2	YM-17	0.0	0.0	180.0	60.0	65.0	0.0	0.012
100458.2	49405.8	4947.2	YM-17	0.0	0.0	180.0	65.0	70.0	0.0	0.005
100458.2	49405.8	4942.2	YM-17	0.0	0.0	180.0	70.0	75.0	0.0	0.005
100458.2	49405.8	4937.2	YM-17	0.0	0.0	180.0	75.0	80.0	0.0	0.005
100458.2	49405.8	4932.2	YM-17	0.0	0.0	180.0	80.0	85.0	0.0	0.003
100458.2	49405.8	4927.2	YM-17	0.0	0.0	180.0	85.0	90.0	0.0	0.001
100458.2	49405.8	4922.2	YM-17	0.0	0.0	180.0	90.0	95.0	0.0	0.002
100458.2	49405.8	4917.2	YM-17	0.0	0.0	180.0	95.0	100.0	0.0	0.001
100458.2	49405.8	4912.2	YM-17	0.0	0.0	180.0	100.0	105.0	0.0	0.002
100458.2	49405.8	4907.2	YM-17	0.0	0.0	180.0	105.0	110.0	0.0	0.003
100458.2	49405.8	4902.2	YM-17	0.0	0.0	180.0	110.0	115.0	0.0	0.002
100458.2	49405.8	4897.2	YM-17	0.0	0.0	180.0	115.0	120.0	0.0	0.002
100458.2	49405.8	4892.2	YM-17	0.0	0.0	180.0	120.0	125.0	0.0	0.003
100458.2	49405.8	4887.2	YM-17	0.0	0.0	180.0	125.0	130.0	0.0	0.003
100458.2	49405.8	4882.2	YM-17	0.0	0.0	180.0	130.0	135.0	0.0	0.003
100458.2	49405.8	4877.2	YM-17	0.0	0.0	180.0	135.0	140.0	0.0	0.004
100458.2	49405.8	4872.2	YM-17	0.0	0.0	180.0	140.0	145.0	0.0	0.002
100458.2	49405.8	4867.2	YM-17	0.0	0.0	180.0	145.0	150.0	0.0	0.022
100458.2	49405.8	4862.2	YM-17	0.0	0.0	180.0	150.0	155.0	0.0	0.004
100458.2	49405.8	4857.2	YM-17	0.0	0.0	180.0	155.0	160.0	0.0	0.002
100458.2	49405.8	4852.2	YM-17	0.0	0.0	180.0	160.0	165.0	0.0	0.003
100458.2	49405.8	4847.2	YM-17	0.0	0.0	180.0	165.0	170.0	0.0	0.002
100458.2	49405.8	4842.2	YM-17	0.0	0.0	180.0	170.0	175.0	0.0	0.002
100458.2	49405.8	4837.2	YM-17	0.0	0.0	180.0	175.0	180.0	0.0	0.005
100458.2	49405.8	4832.2	YM-17	0.0	0.0	180.0	180.0	185.0	0.0	0.003
100458.2	49405.8	4827.2	YM-17	0.0	0.0	180.0	185.0	190.0	0.0	0.002
100458.2	49405.8	4822.2	YM-17	0.0	0.0	180.0	190.0	195.0	0.0	0.003
100458.2	49405.8	4817.2	YM-17	0.0	0.0	180.0	195.0	200.0	0.0	0.002
100458.2	49405.8	4812.2	YM-17	0.0	0.0	180.0	200.0	205.0	0.0	0.005
100458.2	49405.8	4807.2	YM-17	0.0	0.0	180.0	205.0	210.0	0.0	0.006
100458.2	49405.8	4802.2	YM-17	0.0	0.0	180.0	210.0	215.0	0.0	0.020
100458.2	49405.8	4797.2	YM-17	0.0	0.0	180.0	215.0	220.0	0.0	0.005
100458.2	49405.8	4792.2	YM-17	0.0	0.0	180.0	220.0	225.0	0.0	0.005
100458.2	49405.8	4787.2	YM-17	0.0	0.0	180.0	225.0	230.0	0.0	0.021

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100458.2	49405.8	4782.2	YM-17	0.0	0.0	180.0	230.0	235.0	0.0	0.006
100458.2	49405.8	4777.2	YM-17	0.0	0.0	180.0	235.0	240.0	0.0	0.005
100458.2	49405.8	4772.2	YM-17	0.0	0.0	180.0	240.0	245.0	0.0	0.034
100458.2	49405.8	4767.2	YM-17	0.0	0.0	180.0	245.0	250.0	0.0	0.018
100458.2	49405.8	4762.2	YM-17	0.0	0.0	180.0	250.0	255.0	0.0	0.016
100458.2	49405.8	4757.2	YM-17	0.0	0.0	180.0	255.0	260.0	0.0	0.018
100458.2	49405.8	4752.2	YM-17	0.0	0.0	180.0	260.0	265.0	0.0	0.018
100458.2	49405.8	4747.2	YM-17	0.0	0.0	180.0	265.0	270.0	0.0	0.008
100458.2	49405.8	4742.2	YM-17	0.0	0.0	180.0	270.0	275.0	0.0	0.022
100458.2	49405.8	4737.2	YM-17	0.0	0.0	180.0	275.0	280.0	0.0	0.021
100458.2	49405.8	4732.2	YM-17	0.0	0.0	180.0	280.0	285.0	0.0	0.007
100458.2	49405.8	4727.2	YM-17	0.0	0.0	180.0	285.0	290.0	0.0	0.076
100458.2	49405.8	4722.2	YM-17	0.0	0.0	180.0	290.0	295.0	0.0	0.008
100458.2	49405.8	4717.2	YM-17	0.0	0.0	180.0	295.0	300.0	0.0	0.006
100458.2	49405.8	4712.2	YM-17	0.0	0.0	180.0	300.0	305.0	0.0	0.009
100458.2	49405.8	4707.2	YM-17	0.0	0.0	180.0	305.0	310.0	0.0	0.049
100458.2	49405.8	4702.2	YM-17	0.0	0.0	180.0	310.0	315.0	0.0	0.114
100458.2	49405.8	4697.2	YM-17	0.0	0.0	180.0	315.0	320.0	0.0	0.096
100458.2	49405.8	4692.2	YM-17	0.0	0.0	180.0	320.0	325.0	0.0	0.020
100458.2	49405.8	4687.2	YM-17	0.0	0.0	180.0	325.0	330.0	0.0	0.006
100458.2	49405.8	4682.2	YM-17	0.0	0.0	180.0	330.0	335.0	0.0	0.009
100458.2	49405.8	4677.2	YM-17	0.0	0.0	180.0	335.0	340.0	0.0	0.005
100458.2	49405.8	4672.2	YM-17	0.0	0.0	180.0	340.0	345.0	0.0	0.011
100458.2	49405.8	4667.2	YM-17	0.0	0.0	180.0	345.0	350.0	0.0	0.018
100458.2	49405.8	4662.2	YM-17	0.0	0.0	180.0	350.0	355.0	0.0	0.021
100458.2	49405.8	4657.2	YM-17	0.0	0.0	180.0	355.0	360.0	0.0	0.028
100458.2	49405.8	4652.2	YM-17	0.0	0.0	180.0	360.0	365.0	0.0	0.003
100458.2	49405.8	4647.2	YM-17	0.0	0.0	180.0	365.0	370.0	0.0	0.003
100458.2	49405.8	4642.2	YM-17	0.0	0.0	180.0	370.0	375.0	0.0	0.002
100458.2	49405.8	4637.2	YM-17	0.0	0.0	180.0	375.0	380.0	0.0	0.002
100458.2	49405.8	4632.2	YM-17	0.0	0.0	180.0	380.0	385.0	0.0	0.001
100458.2	49405.8	4627.2	YM-17	0.0	0.0	180.0	385.0	390.0	0.0	0.001
100458.2	49405.8	4622.2	YM-17	0.0	0.0	180.0	390.0	395.0	0.0	0.001
100458.2	49405.8	4617.2	YM-17	0.0	0.0	180.0	395.0	400.0	0.0	0.002
100458.2	49405.8	4612.2	YM-17	0.0	0.0	180.0	400.0	405.0	0.0	0.002
100458.2	49405.8	4607.2	YM-17	0.0	0.0	180.0	405.0	410.0	0.0	0.003
100458.2	49405.8	4602.2	YM-17	0.0	0.0	180.0	410.0	415.0	0.0	0.002
100458.2	49405.8	4597.2	YM-17	0.0	0.0	180.0	415.0	420.0	0.0	0.015
100458.2	49405.8	4592.2	YM-17	0.0	0.0	180.0	420.0	425.0	0.0	0.002
100458.2	49405.8	4587.2	YM-17	0.0	0.0	180.0	425.0	430.0	0.0	0.002
100458.2	49405.8	4582.2	YM-17	0.0	0.0	180.0	430.0	435.0	0.0	0.001
100458.2	49405.8	4577.2	YM-17	0.0	0.0	180.0	435.0	440.0	0.0	0.008
100458.2	49405.8	4572.2	YM-17	0.0	0.0	180.0	440.0	445.0	0.0	0.003
100458.2	49405.8	4567.2	YM-17	0.0	0.0	180.0	445.0	450.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100637.8	50002.4	4990.8	YM-18	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100637.8	50002.4	4985.8	YM-18	0.0	0.0	180.0	0.0	5.0	0.0	0.025
100637.8	50002.4	4980.8	YM-18	0.0	0.0	180.0	5.0	10.0	0.0	0.006
100637.8	50002.4	4975.8	YM-18	0.0	0.0	180.0	10.0	15.0	0.0	0.005
100637.8	50002.4	4970.8	YM-18	0.0	0.0	180.0	15.0	20.0	0.0	0.146
100637.8	50002.4	4965.8	YM-18	0.0	0.0	180.0	20.0	25.0	0.0	0.007
100637.8	50002.4	4960.8	YM-18	0.0	0.0	180.0	25.0	30.0	0.0	0.004
100637.8	50002.4	4955.8	YM-18	0.0	0.0	180.0	30.0	35.0	0.0	0.014
100637.8	50002.4	4950.8	YM-18	0.0	0.0	180.0	35.0	40.0	0.0	0.008
100637.8	50002.4	4945.8	YM-18	0.0	0.0	180.0	40.0	45.0	0.0	0.024
100637.8	50002.4	4940.8	YM-18	0.0	0.0	180.0	45.0	50.0	0.0	0.006
100637.8	50002.4	4935.8	YM-18	0.0	0.0	180.0	50.0	55.0	0.0	0.026
100637.8	50002.4	4930.8	YM-18	0.0	0.0	180.0	55.0	60.0	0.0	0.021
100637.8	50002.4	4925.8	YM-18	0.0	0.0	180.0	60.0	65.0	0.0	0.015
100637.8	50002.4	4920.8	YM-18	0.0	0.0	180.0	65.0	70.0	0.0	0.041
100637.8	50002.4	4915.8	YM-18	0.0	0.0	180.0	70.0	75.0	0.0	0.013
100637.8	50002.4	4910.8	YM-18	0.0	0.0	180.0	75.0	80.0	0.0	0.008
100637.8	50002.4	4905.8	YM-18	0.0	0.0	180.0	80.0	85.0	0.0	0.019
100637.8	50002.4	4900.8	YM-18	0.0	0.0	180.0	85.0	90.0	0.0	0.011
100637.8	50002.4	4895.8	YM-18	0.0	0.0	180.0	90.0	95.0	0.0	0.018
100637.8	50002.4	4890.8	YM-18	0.0	0.0	180.0	95.0	100.0	0.0	0.013
100637.8	50002.4	4885.8	YM-18	0.0	0.0	180.0	100.0	105.0	0.0	0.058
100637.8	50002.4	4880.8	YM-18	0.0	0.0	180.0	105.0	110.0	0.0	0.035
100637.8	50002.4	4875.8	YM-18	0.0	0.0	180.0	110.0	115.0	0.0	0.022
100637.8	50002.4	4870.8	YM-18	0.0	0.0	180.0	115.0	120.0	0.0	0.014
100637.8	50002.4	4865.8	YM-18	0.0	0.0	180.0	120.0	125.0	0.0	0.134
100637.8	50002.4	4860.8	YM-18	0.0	0.0	180.0	125.0	130.0	0.0	0.297
100637.8	50002.4	4855.8	YM-18	0.0	0.0	180.0	130.0	135.0	0.0	0.038
100637.8	50002.4	4850.8	YM-18	0.0	0.0	180.0	135.0	140.0	0.0	0.028
100637.8	50002.4	4845.8	YM-18	0.0	0.0	180.0	140.0	145.0	0.0	0.012
100637.8	50002.4	4840.8	YM-18	0.0	0.0	180.0	145.0	150.0	0.0	0.008
100637.8	50002.4	4835.8	YM-18	0.0	0.0	180.0	150.0	155.0	0.0	0.008
100637.8	50002.4	4830.8	YM-18	0.0	0.0	180.0	155.0	160.0	0.0	0.004
100637.8	50002.4	4825.8	YM-18	0.0	0.0	180.0	160.0	165.0	0.0	0.013
100637.8	50002.4	4820.8	YM-18	0.0	0.0	180.0	165.0	170.0	0.0	0.004
100637.8	50002.4	4815.8	YM-18	0.0	0.0	180.0	170.0	175.0	0.0	0.007
100637.8	50002.4	4810.8	YM-18	0.0	0.0	180.0	175.0	180.0	0.0	0.002
100637.8	50002.4	4805.8	YM-18	0.0	0.0	180.0	180.0	185.0	0.0	0.004
100637.8	50002.4	4800.8	YM-18	0.0	0.0	180.0	185.0	190.0	0.0	0.002
100637.8	50002.4	4795.8	YM-18	0.0	0.0	180.0	190.0	195.0	0.0	0.003
100637.8	50002.4	4790.8	YM-18	0.0	0.0	180.0	195.0	200.0	0.0	0.005
100637.8	50002.4	4785.8	YM-18	0.0	0.0	180.0	200.0	205.0	0.0	0.008
100637.8	50002.4	4780.8	YM-18	0.0	0.0	180.0	205.0	210.0	0.0	0.003
100637.8	50002.4	4775.8	YM-18	0.0	0.0	180.0	210.0	215.0	0.0	0.008
100637.8	50002.4	4770.8	YM-18	0.0	0.0	180.0	215.0	220.0	0.0	0.002
100637.8	50002.4	4765.8	YM-18	0.0	0.0	180.0	220.0	225.0	0.0	0.003
100637.8	50002.4	4760.8	YM-18	0.0	0.0	180.0	225.0	230.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100637.8	50002.4	4755.8	YM-18	0.0	0.0	180.0	230.0	235.0	0.0	0.000
100637.8	50002.4	4750.8	YM-18	0.0	0.0	180.0	235.0	240.0	0.0	0.000
100637.8	50002.4	4745.8	YM-18	0.0	0.0	180.0	240.0	245.0	0.0	0.000
100637.8	50002.4	4740.8	YM-18	0.0	0.0	180.0	245.0	250.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100769.4	49894.2	4973.5	YM-19	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100769.4	49894.2	4968.5	YM-19	0.0	0.0	180.0	0.0	5.0	0.0	0.004
100769.4	49894.2	4963.5	YM-19	0.0	0.0	180.0	5.0	10.0	0.0	0.002
100769.4	49894.2	4958.5	YM-19	0.0	0.0	180.0	10.0	15.0	0.0	0.010
100769.4	49894.2	4953.5	YM-19	0.0	0.0	180.0	15.0	20.0	0.0	0.004
100769.4	49894.2	4948.5	YM-19	0.0	0.0	180.0	20.0	25.0	0.0	0.010
100769.4	49894.2	4943.5	YM-19	0.0	0.0	180.0	25.0	30.0	0.0	0.015
100769.4	49894.2	4938.5	YM-19	0.0	0.0	180.0	30.0	35.0	0.0	0.011
100769.4	49894.2	4933.5	YM-19	0.0	0.0	180.0	35.0	40.0	0.0	0.062
100769.4	49894.2	4928.5	YM-19	0.0	0.0	180.0	40.0	45.0	0.0	0.004
100769.4	49894.2	4923.5	YM-19	0.0	0.0	180.0	45.0	50.0	0.0	0.012
100769.4	49894.2	4918.5	YM-19	0.0	0.0	180.0	50.0	55.0	0.0	0.015
100769.4	49894.2	4913.5	YM-19	0.0	0.0	180.0	55.0	60.0	0.0	0.001
100769.4	49894.2	4908.5	YM-19	0.0	0.0	180.0	60.0	65.0	0.0	0.010
100769.4	49894.2	4903.5	YM-19	0.0	0.0	180.0	65.0	70.0	0.0	0.026
100769.4	49894.2	4898.5	YM-19	0.0	0.0	180.0	70.0	75.0	0.0	0.009
100769.4	49894.2	4893.5	YM-19	0.0	0.0	180.0	75.0	80.0	0.0	0.013
100769.4	49894.2	4888.5	YM-19	0.0	0.0	180.0	80.0	85.0	0.0	0.027
100769.4	49894.2	4883.5	YM-19	0.0	0.0	180.0	85.0	90.0	0.0	0.001
100769.4	49894.2	4878.5	YM-19	0.0	0.0	180.0	90.0	95.0	0.0	0.002
100769.4	49894.2	4873.5	YM-19	0.0	0.0	180.0	95.0	100.0	0.0	0.001
100769.4	49894.2	4868.5	YM-19	0.0	0.0	180.0	100.0	105.0	0.0	0.010
100769.4	49894.2	4863.5	YM-19	0.0	0.0	180.0	105.0	110.0	0.0	0.007
100769.4	49894.2	4858.5	YM-19	0.0	0.0	180.0	110.0	115.0	0.0	0.009
100769.4	49894.2	4853.5	YM-19	0.0	0.0	180.0	115.0	120.0	0.0	0.003
100769.4	49894.2	4848.5	YM-19	0.0	0.0	180.0	120.0	125.0	0.0	0.007
100769.4	49894.2	4843.5	YM-19	0.0	0.0	180.0	125.0	130.0	0.0	0.013
100769.4	49894.2	4838.5	YM-19	0.0	0.0	180.0	130.0	135.0	0.0	0.006
100769.4	49894.2	4833.5	YM-19	0.0	0.0	180.0	135.0	140.0	0.0	0.005
100769.4	49894.2	4828.5	YM-19	0.0	0.0	180.0	140.0	145.0	0.0	0.005
100769.4	49894.2	4823.5	YM-19	0.0	0.0	180.0	145.0	150.0	0.0	0.002
100769.4	49894.2	4818.5	YM-19	0.0	0.0	180.0	150.0	155.0	0.0	0.003
100769.4	49894.2	4813.5	YM-19	0.0	0.0	180.0	155.0	160.0	0.0	0.002
100769.4	49894.2	4808.5	YM-19	0.0	0.0	180.0	160.0	165.0	0.0	0.004
100769.4	49894.2	4803.5	YM-19	0.0	0.0	180.0	165.0	170.0	0.0	0.018
100769.4	49894.2	4798.5	YM-19	0.0	0.0	180.0	170.0	175.0	0.0	0.005
100769.4	49894.2	4793.5	YM-19	0.0	0.0	180.0	175.0	180.0	0.0	0.007
100769.4	49894.2	4788.5	YM-19	0.0	0.0	180.0	180.0	185.0	0.0	0.023
100769.4	49894.2	4783.5	YM-19	0.0	0.0	180.0	185.0	190.0	0.0	0.007
100769.4	49894.2	4778.5	YM-19	0.0	0.0	180.0	190.0	195.0	0.0	0.005
100769.4	49894.2	4773.5	YM-19	0.0	0.0	180.0	195.0	200.0	0.0	0.008
100769.4	49894.2	4768.5	YM-19	0.0	0.0	180.0	200.0	205.0	0.0	0.005
100769.4	49894.2	4763.5	YM-19	0.0	0.0	180.0	205.0	210.0	0.0	0.015
100769.4	49894.2	4758.5	YM-19	0.0	0.0	180.0	210.0	215.0	0.0	0.053
100769.4	49894.2	4753.5	YM-19	0.0	0.0	180.0	215.0	220.0	0.0	0.024
100769.4	49894.2	4748.5	YM-19	0.0	0.0	180.0	220.0	225.0	0.0	0.062
100769.4	49894.2	4743.5	YM-19	0.0	0.0	180.0	225.0	230.0	0.0	0.112

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100769.4	49894.2	4738.5	YM-19	0.0	0.0	180.0	230.0	235.0	0.0	0.083
100769.4	49894.2	4733.5	YM-19	0.0	0.0	180.0	235.0	240.0	0.0	0.007
100769.4	49894.2	4728.5	YM-19	0.0	0.0	180.0	240.0	245.0	0.0	0.008
100769.4	49894.2	4723.5	YM-19	0.0	0.0	180.0	245.0	250.0	0.0	0.004
100769.4	49894.2	4718.5	YM-19	0.0	0.0	180.0	250.0	255.0	0.0	0.001
100769.4	49894.2	4713.5	YM-19	0.0	0.0	180.0	255.0	260.0	0.0	0.002
100769.4	49894.2	4708.5	YM-19	0.0	0.0	180.0	260.0	265.0	0.0	0.001
100769.4	49894.2	4703.5	YM-19	0.0	0.0	180.0	265.0	270.0	0.0	0.001
100769.4	49894.2	4698.5	YM-19	0.0	0.0	180.0	270.0	275.0	0.0	0.002
100769.4	49894.2	4693.5	YM-19	0.0	0.0	180.0	275.0	280.0	0.0	0.001
100769.4	49894.2	4688.5	YM-19	0.0	0.0	180.0	280.0	285.0	0.0	0.001
100769.4	49894.2	4683.5	YM-19	0.0	0.0	180.0	285.0	290.0	0.0	0.000
100769.4	49894.2	4678.5	YM-19	0.0	0.0	180.0	290.0	295.0	0.0	0.001
100769.4	49894.2	4673.5	YM-19	0.0	0.0	180.0	295.0	300.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100136.5	50065.9	5074.7	YM-20	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100136.5	50065.9	5069.7	YM-20	0.0	0.0	180.0	0.0	5.0	0.0	0.044
100136.5	50065.9	5064.7	YM-20	0.0	0.0	180.0	5.0	10.0	0.0	0.011
100136.5	50065.9	5059.7	YM-20	0.0	0.0	180.0	10.0	15.0	0.0	0.010
100136.5	50065.9	5054.7	YM-20	0.0	0.0	180.0	15.0	20.0	0.0	0.015
100136.5	50065.9	5049.7	YM-20	0.0	0.0	180.0	20.0	25.0	0.0	0.052
100136.5	50065.9	5044.7	YM-20	0.0	0.0	180.0	25.0	30.0	0.0	0.331
100136.5	50065.9	5039.7	YM-20	0.0	0.0	180.0	30.0	35.0	0.0	0.024
100136.5	50065.9	5034.7	YM-20	0.0	0.0	180.0	35.0	40.0	0.0	0.004
100136.5	50065.9	5029.7	YM-20	0.0	0.0	180.0	40.0	45.0	0.0	0.004
100136.5	50065.9	5024.7	YM-20	0.0	0.0	180.0	45.0	50.0	0.0	0.003
100136.5	50065.9	5019.7	YM-20	0.0	0.0	180.0	50.0	55.0	0.0	0.001
100136.5	50065.9	5014.7	YM-20	0.0	0.0	180.0	55.0	60.0	0.0	0.001
100136.5	50065.9	5009.7	YM-20	0.0	0.0	180.0	60.0	65.0	0.0	0.002
100136.5	50065.9	5004.7	YM-20	0.0	0.0	180.0	65.0	70.0	0.0	0.002
100136.5	50065.9	4999.7	YM-20	0.0	0.0	180.0	70.0	75.0	0.0	0.002
100136.5	50065.9	4994.7	YM-20	0.0	0.0	180.0	75.0	80.0	0.0	0.001
100136.5	50065.9	4989.7	YM-20	0.0	0.0	180.0	80.0	85.0	0.0	0.002
100136.5	50065.9	4984.7	YM-20	0.0	0.0	180.0	85.0	90.0	0.0	0.001
100136.5	50065.9	4979.7	YM-20	0.0	0.0	180.0	90.0	95.0	0.0	0.000
100136.5	50065.9	4974.7	YM-20	0.0	0.0	180.0	95.0	100.0	0.0	0.000
100136.5	50065.9	4969.7	YM-20	0.0	0.0	180.0	100.0	105.0	0.0	0.000
100136.5	50065.9	4964.7	YM-20	0.0	0.0	180.0	105.0	110.0	0.0	0.000
100136.5	50065.9	4959.7	YM-20	0.0	0.0	180.0	110.0	115.0	0.0	0.004
100136.5	50065.9	4954.7	YM-20	0.0	0.0	180.0	115.0	120.0	0.0	0.002
100136.5	50065.9	4949.7	YM-20	0.0	0.0	180.0	120.0	125.0	0.0	0.003
100136.5	50065.9	4944.7	YM-20	0.0	0.0	180.0	125.0	130.0	0.0	0.001
100136.5	50065.9	4939.7	YM-20	0.0	0.0	180.0	130.0	135.0	0.0	0.001
100136.5	50065.9	4934.7	YM-20	0.0	0.0	180.0	135.0	140.0	0.0	0.002
100136.5	50065.9	4929.7	YM-20	0.0	0.0	180.0	140.0	145.0	0.0	0.001
100136.5	50065.9	4924.7	YM-20	0.0	0.0	180.0	145.0	150.0	0.0	0.003
100136.5	50065.9	4919.7	YM-20	0.0	0.0	180.0	150.0	155.0	0.0	0.000
100136.5	50065.9	4914.7	YM-20	0.0	0.0	180.0	155.0	160.0	0.0	0.000
100136.5	50065.9	4909.7	YM-20	0.0	0.0	180.0	160.0	165.0	0.0	0.000
100136.5	50065.9	4904.7	YM-20	0.0	0.0	180.0	165.0	170.0	0.0	0.000
100136.5	50065.9	4899.7	YM-20	0.0	0.0	180.0	170.0	175.0	0.0	0.002
100136.5	50065.9	4894.7	YM-20	0.0	0.0	180.0	175.0	180.0	0.0	0.001
100136.5	50065.9	4889.7	YM-20	0.0	0.0	180.0	180.0	185.0	0.0	0.001
100136.5	50065.9	4884.7	YM-20	0.0	0.0	180.0	185.0	190.0	0.0	0.000
100136.5	50065.9	4879.7	YM-20	0.0	0.0	180.0	190.0	195.0	0.0	0.000
100136.5	50065.9	4874.7	YM-20	0.0	0.0	180.0	195.0	200.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
101062.1	50094.4	4806.2	YM-21	0.0	0.0	0.0	0.0	0.0	0.0	0.000
101062.1	50094.4	4801.2	YM-21	0.0	0.0	180.0	0.0	5.0	0.0	0.002
101062.1	50094.4	4796.2	YM-21	0.0	0.0	180.0	5.0	10.0	0.0	0.001
101062.1	50094.4	4791.2	YM-21	0.0	0.0	180.0	10.0	15.0	0.0	0.002
101062.1	50094.4	4786.2	YM-21	0.0	0.0	180.0	15.0	20.0	0.0	0.005
101062.1	50094.4	4781.2	YM-21	0.0	0.0	180.0	20.0	25.0	0.0	0.004
101062.1	50094.4	4776.2	YM-21	0.0	0.0	180.0	25.0	30.0	0.0	0.019
101062.1	50094.4	4771.2	YM-21	0.0	0.0	180.0	30.0	35.0	0.0	0.033
101062.1	50094.4	4766.2	YM-21	0.0	0.0	180.0	35.0	40.0	0.0	0.016
101062.1	50094.4	4761.2	YM-21	0.0	0.0	180.0	40.0	45.0	0.0	0.008
101062.1	50094.4	4756.2	YM-21	0.0	0.0	180.0	45.0	50.0	0.0	0.014
101062.1	50094.4	4751.2	YM-21	0.0	0.0	180.0	50.0	55.0	0.0	0.022
101062.1	50094.4	4746.2	YM-21	0.0	0.0	180.0	55.0	60.0	0.0	0.003
101062.1	50094.4	4741.2	YM-21	0.0	0.0	180.0	60.0	65.0	0.0	0.005
101062.1	50094.4	4736.2	YM-21	0.0	0.0	180.0	65.0	70.0	0.0	0.005
101062.1	50094.4	4731.2	YM-21	0.0	0.0	180.0	70.0	75.0	0.0	0.003
101062.1	50094.4	4726.2	YM-21	0.0	0.0	180.0	75.0	80.0	0.0	0.004
101062.1	50094.4	4721.2	YM-21	0.0	0.0	180.0	80.0	85.0	0.0	0.034
101062.1	50094.4	4716.2	YM-21	0.0	0.0	180.0	85.0	90.0	0.0	0.032
101062.1	50094.4	4711.2	YM-21	0.0	0.0	180.0	90.0	95.0	0.0	0.001
101062.1	50094.4	4706.2	YM-21	0.0	0.0	180.0	95.0	100.0	0.0	0.001
101062.1	50094.4	4701.2	YM-21	0.0	0.0	180.0	100.0	105.0	0.0	0.001
101062.1	50094.4	4696.2	YM-21	0.0	0.0	180.0	105.0	110.0	0.0	0.001
101062.1	50094.4	4691.2	YM-21	0.0	0.0	180.0	110.0	115.0	0.0	0.001
101062.1	50094.4	4686.2	YM-21	0.0	0.0	180.0	115.0	120.0	0.0	0.002
101062.1	50094.4	4681.2	YM-21	0.0	0.0	180.0	120.0	125.0	0.0	0.003
101062.1	50094.4	4676.2	YM-21	0.0	0.0	180.0	125.0	130.0	0.0	0.001
101062.1	50094.4	4671.2	YM-21	0.0	0.0	180.0	130.0	135.0	0.0	0.000
101062.1	50094.4	4666.2	YM-21	0.0	0.0	180.0	135.0	140.0	0.0	0.000
101062.1	50094.4	4661.2	YM-21	0.0	0.0	180.0	140.0	145.0	0.0	0.000
101062.1	50094.4	4656.2	YM-21	0.0	0.0	180.0	145.0	150.0	0.0	0.000
101062.1	50094.4	4651.2	YM-21	0.0	0.0	180.0	150.0	155.0	0.0	0.000
101062.1	50094.4	4646.2	YM-21	0.0	0.0	180.0	155.0	160.0	0.0	0.000
101062.1	50094.4	4641.2	YM-21	0.0	0.0	180.0	160.0	165.0	0.0	0.000
101062.1	50094.4	4636.2	YM-21	0.0	0.0	180.0	165.0	170.0	0.0	0.007
101062.1	50094.4	4631.2	YM-21	0.0	0.0	180.0	170.0	175.0	0.0	0.010
101062.1	50094.4	4626.2	YM-21	0.0	0.0	180.0	175.0	180.0	0.0	0.000
101062.1	50094.4	4621.2	YM-21	0.0	0.0	180.0	180.0	185.0	0.0	0.000
101062.1	50094.4	4616.2	YM-21	0.0	0.0	180.0	185.0	190.0	0.0	0.000
101062.1	50094.4	4611.2	YM-21	0.0	0.0	180.0	190.0	195.0	0.0	0.000
101062.1	50094.4	4606.2	YM-21	0.0	0.0	180.0	195.0	200.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100172.6	49027.2	4884.0	YM-22	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100172.6	49027.2	4879.0	YM-22	0.0	0.0	180.0	0.0	5.0	0.0	0.001
100172.6	49027.2	4874.0	YM-22	0.0	0.0	180.0	5.0	10.0	0.0	0.002
100172.6	49027.2	4869.0	YM-22	0.0	0.0	180.0	10.0	15.0	0.0	0.001
100172.6	49027.2	4864.0	YM-22	0.0	0.0	180.0	15.0	20.0	0.0	0.001
100172.6	49027.2	4859.0	YM-22	0.0	0.0	180.0	20.0	25.0	0.0	0.000
100172.6	49027.2	4854.0	YM-22	0.0	0.0	180.0	25.0	30.0	0.0	0.000
100172.6	49027.2	4849.0	YM-22	0.0	0.0	180.0	30.0	35.0	0.0	0.000
100172.6	49027.2	4844.0	YM-22	0.0	0.0	180.0	35.0	40.0	0.0	0.000
100172.6	49027.2	4839.0	YM-22	0.0	0.0	180.0	40.0	45.0	0.0	0.000
100172.6	49027.2	4834.0	YM-22	0.0	0.0	180.0	45.0	50.0	0.0	0.000
100172.6	49027.2	4829.0	YM-22	0.0	0.0	180.0	50.0	55.0	0.0	0.000
100172.6	49027.2	4824.0	YM-22	0.0	0.0	180.0	55.0	60.0	0.0	0.001
100172.6	49027.2	4819.0	YM-22	0.0	0.0	180.0	60.0	65.0	0.0	0.001
100172.6	49027.2	4814.0	YM-22	0.0	0.0	180.0	65.0	70.0	0.0	0.001
100172.6	49027.2	4809.0	YM-22	0.0	0.0	180.0	70.0	75.0	0.0	0.001
100172.6	49027.2	4804.0	YM-22	0.0	0.0	180.0	75.0	80.0	0.0	0.000
100172.6	49027.2	4799.0	YM-22	0.0	0.0	180.0	80.0	85.0	0.0	0.000
100172.6	49027.2	4794.0	YM-22	0.0	0.0	180.0	85.0	90.0	0.0	0.000
100172.6	49027.2	4789.0	YM-22	0.0	0.0	180.0	90.0	95.0	0.0	0.001
100172.6	49027.2	4784.0	YM-22	0.0	0.0	180.0	95.0	100.0	0.0	0.001
100172.6	49027.2	4779.0	YM-22	0.0	0.0	180.0	100.0	105.0	0.0	0.003
100172.6	49027.2	4774.0	YM-22	0.0	0.0	180.0	105.0	110.0	0.0	0.002
100172.6	49027.2	4769.0	YM-22	0.0	0.0	180.0	110.0	115.0	0.0	0.001
100172.6	49027.2	4764.0	YM-22	0.0	0.0	180.0	115.0	120.0	0.0	0.001
100172.6	49027.2	4759.0	YM-22	0.0	0.0	180.0	120.0	125.0	0.0	0.000
100172.6	49027.2	4754.0	YM-22	0.0	0.0	180.0	125.0	130.0	0.0	0.001
100172.6	49027.2	4749.0	YM-22	0.0	0.0	180.0	130.0	135.0	0.0	0.001
100172.6	49027.2	4744.0	YM-22	0.0	0.0	180.0	135.0	140.0	0.0	0.004
100172.6	49027.2	4739.0	YM-22	0.0	0.0	180.0	140.0	145.0	0.0	0.000
100172.6	49027.2	4734.0	YM-22	0.0	0.0	180.0	145.0	150.0	0.0	0.001
100172.6	49027.2	4729.0	YM-22	0.0	0.0	180.0	150.0	155.0	0.0	0.003
100172.6	49027.2	4724.0	YM-22	0.0	0.0	180.0	155.0	160.0	0.0	0.003
100172.6	49027.2	4719.0	YM-22	0.0	0.0	180.0	160.0	165.0	0.0	0.002
100172.6	49027.2	4714.0	YM-22	0.0	0.0	180.0	165.0	170.0	0.0	0.001
100172.6	49027.2	4709.0	YM-22	0.0	0.0	180.0	170.0	175.0	0.0	0.002
100172.6	49027.2	4704.0	YM-22	0.0	0.0	180.0	175.0	180.0	0.0	0.003
100172.6	49027.2	4699.0	YM-22	0.0	0.0	180.0	180.0	185.0	0.0	0.002
100172.6	49027.2	4694.0	YM-22	0.0	0.0	180.0	185.0	190.0	0.0	0.001
100172.6	49027.2	4689.0	YM-22	0.0	0.0	180.0	190.0	195.0	0.0	0.001
100172.6	49027.2	4684.0	YM-22	0.0	0.0	180.0	195.0	200.0	0.0	0.008
100172.6	49027.2	4679.0	YM-22	0.0	0.0	180.0	200.0	205.0	0.0	0.002
100172.6	49027.2	4674.0	YM-22	0.0	0.0	180.0	205.0	210.0	0.0	0.004
100172.6	49027.2	4669.0	YM-22	0.0	0.0	180.0	210.0	215.0	0.0	0.007
100172.6	49027.2	4664.0	YM-22	0.0	0.0	180.0	215.0	220.0	0.0	0.025
100172.6	49027.2	4659.0	YM-22	0.0	0.0	180.0	220.0	225.0	0.0	0.046
100172.6	49027.2	4654.0	YM-22	0.0	0.0	180.0	225.0	230.0	0.0	0.006

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100172.6	49027.2	4649.0	YM-22	0.0	0.0	180.0	230.0	235.0	0.0	0.006
100172.6	49027.2	4644.0	YM-22	0.0	0.0	180.0	235.0	240.0	0.0	0.007
100172.6	49027.2	4639.0	YM-22	0.0	0.0	180.0	240.0	245.0	0.0	0.005
100172.6	49027.2	4634.0	YM-22	0.0	0.0	180.0	245.0	250.0	0.0	0.004
100172.6	49027.2	4629.0	YM-22	0.0	0.0	180.0	250.0	255.0	0.0	0.005
100172.6	49027.2	4624.0	YM-22	0.0	0.0	180.0	255.0	260.0	0.0	0.004
100172.6	49027.2	4619.0	YM-22	0.0	0.0	180.0	260.0	265.0	0.0	0.005
100172.6	49027.2	4614.0	YM-22	0.0	0.0	180.0	265.0	270.0	0.0	0.003
100172.6	49027.2	4609.0	YM-22	0.0	0.0	180.0	270.0	275.0	0.0	0.032
100172.6	49027.2	4604.0	YM-22	0.0	0.0	180.0	275.0	280.0	0.0	0.007
100172.6	49027.2	4599.0	YM-22	0.0	0.0	180.0	280.0	285.0	0.0	0.036
100172.6	49027.2	4594.0	YM-22	0.0	0.0	180.0	285.0	290.0	0.0	0.005
100172.6	49027.2	4589.0	YM-22	0.0	0.0	180.0	290.0	295.0	0.0	0.003
100172.6	49027.2	4584.0	YM-22	0.0	0.0	180.0	295.0	300.0	0.0	0.003
100172.6	49027.2	4579.0	YM-22	0.0	0.0	180.0	300.0	305.0	0.0	0.000
100172.6	49027.2	4574.0	YM-22	0.0	0.0	180.0	305.0	310.0	0.0	0.001
100172.6	49027.2	4569.0	YM-22	0.0	0.0	180.0	310.0	315.0	0.0	0.001
100172.6	49027.2	4564.0	YM-22	0.0	0.0	180.0	315.0	320.0	0.0	0.007
100172.6	49027.2	4559.0	YM-22	0.0	0.0	180.0	320.0	325.0	0.0	0.004
100172.6	49027.2	4554.0	YM-22	0.0	0.0	180.0	325.0	330.0	0.0	0.004
100172.6	49027.2	4549.0	YM-22	0.0	0.0	180.0	330.0	335.0	0.0	0.003
100172.6	49027.2	4544.0	YM-22	0.0	0.0	180.0	335.0	340.0	0.0	0.004
100172.6	49027.2	4539.0	YM-22	0.0	0.0	180.0	340.0	345.0	0.0	0.003
100172.6	49027.2	4534.0	YM-22	0.0	0.0	180.0	345.0	350.0	0.0	0.001
100172.6	49027.2	4529.0	YM-22	0.0	0.0	180.0	350.0	355.0	0.0	0.001
100172.6	49027.2	4524.0	YM-22	0.0	0.0	180.0	355.0	360.0	0.0	0.003
100172.6	49027.2	4519.0	YM-22	0.0	0.0	180.0	360.0	365.0	0.0	0.004
100172.6	49027.2	4514.0	YM-22	0.0	0.0	180.0	365.0	370.0	0.0	0.001
100172.6	49027.2	4509.0	YM-22	0.0	0.0	180.0	370.0	375.0	0.0	0.001
100172.6	49027.2	4504.0	YM-22	0.0	0.0	180.0	375.0	380.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100027.2	49165.2	4860.9	YM-23	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100027.2	49165.2	4855.9	YM-23	0.0	0.0	180.0	0.0	5.0	0.0	0.002
100027.2	49165.2	4850.9	YM-23	0.0	0.0	180.0	5.0	10.0	0.0	0.003
100027.2	49165.2	4845.9	YM-23	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100027.2	49165.2	4840.9	YM-23	0.0	0.0	180.0	15.0	20.0	0.0	0.003
100027.2	49165.2	4835.9	YM-23	0.0	0.0	180.0	20.0	25.0	0.0	0.001
100027.2	49165.2	4830.9	YM-23	0.0	0.0	180.0	25.0	30.0	0.0	0.004
100027.2	49165.2	4825.9	YM-23	0.0	0.0	180.0	30.0	35.0	0.0	0.008
100027.2	49165.2	4820.9	YM-23	0.0	0.0	180.0	35.0	40.0	0.0	0.008
100027.2	49165.2	4815.9	YM-23	0.0	0.0	180.0	40.0	45.0	0.0	0.116
100027.2	49165.2	4810.9	YM-23	0.0	0.0	180.0	45.0	50.0	0.0	0.088
100027.2	49165.2	4805.9	YM-23	0.0	0.0	180.0	50.0	55.0	0.0	0.087
100027.2	49165.2	4800.9	YM-23	0.0	0.0	180.0	55.0	60.0	0.0	0.019
100027.2	49165.2	4795.9	YM-23	0.0	0.0	180.0	60.0	65.0	0.0	0.026
100027.2	49165.2	4790.9	YM-23	0.0	0.0	180.0	65.0	70.0	0.0	0.006
100027.2	49165.2	4785.9	YM-23	0.0	0.0	180.0	70.0	75.0	0.0	0.011
100027.2	49165.2	4780.9	YM-23	0.0	0.0	180.0	75.0	80.0	0.0	0.008
100027.2	49165.2	4775.9	YM-23	0.0	0.0	180.0	80.0	85.0	0.0	0.017
100027.2	49165.2	4770.9	YM-23	0.0	0.0	180.0	85.0	90.0	0.0	0.039
100027.2	49165.2	4765.9	YM-23	0.0	0.0	180.0	90.0	95.0	0.0	0.014
100027.2	49165.2	4760.9	YM-23	0.0	0.0	180.0	95.0	100.0	0.0	0.030
100027.2	49165.2	4755.9	YM-23	0.0	0.0	180.0	100.0	105.0	0.0	0.061
100027.2	49165.2	4750.9	YM-23	0.0	0.0	180.0	105.0	110.0	0.0	0.101
100027.2	49165.2	4745.9	YM-23	0.0	0.0	180.0	110.0	115.0	0.0	0.060
100027.2	49165.2	4740.9	YM-23	0.0	0.0	180.0	115.0	120.0	0.0	0.036
100027.2	49165.2	4735.9	YM-23	0.0	0.0	180.0	120.0	125.0	0.0	0.087
100027.2	49165.2	4730.9	YM-23	0.0	0.0	180.0	125.0	130.0	0.0	0.006
100027.2	49165.2	4725.9	YM-23	0.0	0.0	180.0	130.0	135.0	0.0	0.002
100027.2	49165.2	4720.9	YM-23	0.0	0.0	180.0	135.0	140.0	0.0	0.002

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100062.9	49349.4	4893.5	YM-24	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100062.9	49349.4	4888.5	YM-24	0.0	0.0	180.0	0.0	5.0	0.0	0.010
100062.9	49349.4	4883.5	YM-24	0.0	0.0	180.0	5.0	10.0	0.0	0.004
100062.9	49349.4	4878.5	YM-24	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100062.9	49349.4	4873.5	YM-24	0.0	0.0	180.0	15.0	20.0	0.0	0.003
100062.9	49349.4	4868.5	YM-24	0.0	0.0	180.0	20.0	25.0	0.0	0.002
100062.9	49349.4	4863.5	YM-24	0.0	0.0	180.0	25.0	30.0	0.0	0.003
100062.9	49349.4	4858.5	YM-24	0.0	0.0	180.0	30.0	35.0	0.0	0.002
100062.9	49349.4	4853.5	YM-24	0.0	0.0	180.0	35.0	40.0	0.0	0.005
100062.9	49349.4	4848.5	YM-24	0.0	0.0	180.0	40.0	45.0	0.0	0.014
100062.9	49349.4	4843.5	YM-24	0.0	0.0	180.0	45.0	50.0	0.0	0.002
100062.9	49349.4	4838.5	YM-24	0.0	0.0	180.0	50.0	55.0	0.0	0.003
100062.9	49349.4	4833.5	YM-24	0.0	0.0	180.0	55.0	60.0	0.0	0.003
100062.9	49349.4	4828.5	YM-24	0.0	0.0	180.0	60.0	65.0	0.0	0.005
100062.9	49349.4	4823.5	YM-24	0.0	0.0	180.0	65.0	70.0	0.0	-1.000
100062.9	49349.4	4818.5	YM-24	0.0	0.0	180.0	70.0	75.0	0.0	-1.000
100062.9	49349.4	4813.5	YM-24	0.0	0.0	180.0	75.0	80.0	0.0	0.229
100062.9	49349.4	4808.5	YM-24	0.0	0.0	180.0	80.0	85.0	0.0	0.118
100062.9	49349.4	4803.5	YM-24	0.0	0.0	180.0	85.0	90.0	0.0	0.052
100062.9	49349.4	4798.5	YM-24	0.0	0.0	180.0	90.0	95.0	0.0	0.081
100062.9	49349.4	4793.5	YM-24	0.0	0.0	180.0	95.0	100.0	0.0	0.095
100062.9	49349.4	4788.5	YM-24	0.0	0.0	180.0	100.0	105.0	0.0	0.038
100062.9	49349.4	4783.5	YM-24	0.0	0.0	180.0	105.0	110.0	0.0	0.099
100062.9	49349.4	4778.5	YM-24	0.0	0.0	180.0	110.0	115.0	0.0	0.029
100062.9	49349.4	4773.5	YM-24	0.0	0.0	180.0	115.0	120.0	0.0	0.006
100062.9	49349.4	4768.5	YM-24	0.0	0.0	180.0	120.0	125.0	0.0	0.003
100062.9	49349.4	4763.5	YM-24	0.0	0.0	180.0	125.0	130.0	0.0	0.003
100062.9	49349.4	4758.5	YM-24	0.0	0.0	180.0	130.0	135.0	0.0	0.004
100062.9	49349.4	4753.5	YM-24	0.0	0.0	180.0	135.0	140.0	0.0	0.004
100062.9	49349.4	4748.5	YM-24	0.0	0.0	180.0	140.0	145.0	0.0	0.004
100062.9	49349.4	4743.5	YM-24	0.0	0.0	180.0	145.0	150.0	0.0	0.005

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100164.1	49521.7	4947.3	YM-25	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100164.1	49521.7	4942.3	YM-25	0.0	0.0	180.0	0.0	5.0	0.0	0.010
100164.1	49521.7	4937.3	YM-25	0.0	0.0	180.0	5.0	10.0	0.0	0.008
100164.1	49521.7	4932.3	YM-25	0.0	0.0	180.0	10.0	15.0	0.0	0.007
100164.1	49521.7	4927.3	YM-25	0.0	0.0	180.0	15.0	20.0	0.0	0.008
100164.1	49521.7	4922.3	YM-25	0.0	0.0	180.0	20.0	25.0	0.0	-1.000
100164.1	49521.7	4917.3	YM-25	0.0	0.0	180.0	25.0	30.0	0.0	0.005
100164.1	49521.7	4912.3	YM-25	0.0	0.0	180.0	30.0	35.0	0.0	0.004
100164.1	49521.7	4907.3	YM-25	0.0	0.0	180.0	35.0	40.0	0.0	0.003
100164.1	49521.7	4902.3	YM-25	0.0	0.0	180.0	40.0	45.0	0.0	0.021
100164.1	49521.7	4897.3	YM-25	0.0	0.0	180.0	45.0	50.0	0.0	-1.000
100164.1	49521.7	4892.3	YM-25	0.0	0.0	180.0	50.0	55.0	0.0	0.002
100164.1	49521.7	4887.3	YM-25	0.0	0.0	180.0	55.0	60.0	0.0	0.029
100164.1	49521.7	4882.3	YM-25	0.0	0.0	180.0	60.0	65.0	0.0	0.027
100164.1	49521.7	4877.3	YM-25	0.0	0.0	180.0	65.0	70.0	0.0	0.111
100164.1	49521.7	4872.3	YM-25	0.0	0.0	180.0	70.0	75.0	0.0	0.078
100164.1	49521.7	4867.3	YM-25	0.0	0.0	180.0	75.0	80.0	0.0	0.161
100164.1	49521.7	4862.3	YM-25	0.0	0.0	180.0	80.0	85.0	0.0	0.023
100164.1	49521.7	4857.3	YM-25	0.0	0.0	180.0	85.0	90.0	0.0	0.058
100164.1	49521.7	4852.3	YM-25	0.0	0.0	180.0	90.0	95.0	0.0	0.011
100164.1	49521.7	4847.3	YM-25	0.0	0.0	180.0	95.0	100.0	0.0	0.003
100164.1	49521.7	4842.3	YM-25	0.0	0.0	180.0	100.0	105.0	0.0	0.003
100164.1	49521.7	4837.3	YM-25	0.0	0.0	180.0	105.0	110.0	0.0	0.002
100164.1	49521.7	4832.3	YM-25	0.0	0.0	180.0	110.0	115.0	0.0	0.001
100164.1	49521.7	4827.3	YM-25	0.0	0.0	180.0	115.0	120.0	0.0	0.001
100164.1	49521.7	4822.3	YM-25	0.0	0.0	180.0	120.0	125.0	0.0	0.001
100164.1	49521.7	4817.3	YM-25	0.0	0.0	180.0	125.0	130.0	0.0	0.000
100164.1	49521.7	4812.3	YM-25	0.0	0.0	180.0	130.0	135.0	0.0	0.000
100164.1	49521.7	4807.3	YM-25	0.0	0.0	180.0	135.0	140.0	0.0	0.000
100164.1	49521.7	4802.3	YM-25	0.0	0.0	180.0	140.0	145.0	0.0	0.000
100164.1	49521.7	4797.3	YM-25	0.0	0.0	180.0	145.0	150.0	0.0	0.004
100164.1	49521.7	4792.3	YM-25	0.0	0.0	180.0	150.0	155.0	0.0	0.004
100164.1	49521.7	4787.3	YM-25	0.0	0.0	180.0	155.0	160.0	0.0	0.002

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100427.5	49139.4	4911.0	YM-26	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100427.5	49139.4	4906.0	YM-26	0.0	0.0	180.0	0.0	5.0	0.0	0.002
100427.5	49139.4	4901.0	YM-26	0.0	0.0	180.0	5.0	10.0	0.0	-1.000
100427.5	49139.4	4896.0	YM-26	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100427.5	49139.4	4891.0	YM-26	0.0	0.0	180.0	15.0	20.0	0.0	-1.000
100427.5	49139.4	4886.0	YM-26	0.0	0.0	180.0	20.0	25.0	0.0	0.003
100427.5	49139.4	4881.0	YM-26	0.0	0.0	180.0	25.0	30.0	0.0	-1.000
100427.5	49139.4	4876.0	YM-26	0.0	0.0	180.0	30.0	35.0	0.0	0.001
100427.5	49139.4	4871.0	YM-26	0.0	0.0	180.0	35.0	40.0	0.0	-1.000
100427.5	49139.4	4866.0	YM-26	0.0	0.0	180.0	40.0	45.0	0.0	0.002
100427.5	49139.4	4861.0	YM-26	0.0	0.0	180.0	45.0	50.0	0.0	-1.000
100427.5	49139.4	4856.0	YM-26	0.0	0.0	180.0	50.0	55.0	0.0	0.002
100427.5	49139.4	4851.0	YM-26	0.0	0.0	180.0	55.0	60.0	0.0	-1.000
100427.5	49139.4	4846.0	YM-26	0.0	0.0	180.0	60.0	65.0	0.0	0.001
100427.5	49139.4	4841.0	YM-26	0.0	0.0	180.0	65.0	70.0	0.0	-1.000
100427.5	49139.4	4836.0	YM-26	0.0	0.0	180.0	70.0	75.0	0.0	0.022
100427.5	49139.4	4831.0	YM-26	0.0	0.0	180.0	75.0	80.0	0.0	-1.000
100427.5	49139.4	4826.0	YM-26	0.0	0.0	180.0	80.0	85.0	0.0	0.001
100427.5	49139.4	4821.0	YM-26	0.0	0.0	180.0	85.0	90.0	0.0	-1.000
100427.5	49139.4	4816.0	YM-26	0.0	0.0	180.0	90.0	95.0	0.0	0.002
100427.5	49139.4	4811.0	YM-26	0.0	0.0	180.0	95.0	100.0	0.0	-1.000
100427.5	49139.4	4806.0	YM-26	0.0	0.0	180.0	100.0	105.0	0.0	0.001
100427.5	49139.4	4801.0	YM-26	0.0	0.0	180.0	105.0	110.0	0.0	-1.000
100427.5	49139.4	4796.0	YM-26	0.0	0.0	180.0	110.0	115.0	0.0	0.001
100427.5	49139.4	4791.0	YM-26	0.0	0.0	180.0	115.0	120.0	0.0	-1.000
100427.5	49139.4	4786.0	YM-26	0.0	0.0	180.0	120.0	125.0	0.0	0.002
100427.5	49139.4	4781.0	YM-26	0.0	0.0	180.0	125.0	130.0	0.0	-1.000
100427.5	49139.4	4776.0	YM-26	0.0	0.0	180.0	130.0	135.0	0.0	0.003
100427.5	49139.4	4771.0	YM-26	0.0	0.0	180.0	135.0	140.0	0.0	-1.000
100427.5	49139.4	4766.0	YM-26	0.0	0.0	180.0	140.0	145.0	0.0	0.002
100427.5	49139.4	4761.0	YM-26	0.0	0.0	180.0	145.0	150.0	0.0	-1.000
100427.5	49139.4	4756.0	YM-26	0.0	0.0	180.0	150.0	155.0	0.0	0.003
100427.5	49139.4	4751.0	YM-26	0.0	0.0	180.0	155.0	160.0	0.0	-1.000
100427.5	49139.4	4746.0	YM-26	0.0	0.0	180.0	160.0	165.0	0.0	0.002
100427.5	49139.4	4741.0	YM-26	0.0	0.0	180.0	165.0	170.0	0.0	-1.000
100427.5	49139.4	4736.0	YM-26	0.0	0.0	180.0	170.0	175.0	0.0	0.002
100427.5	49139.4	4731.0	YM-26	0.0	0.0	180.0	175.0	180.0	0.0	-1.000
100427.5	49139.4	4726.0	YM-26	0.0	0.0	180.0	180.0	185.0	0.0	0.002
100427.5	49139.4	4721.0	YM-26	0.0	0.0	180.0	185.0	190.0	0.0	-1.000
100427.5	49139.4	4716.0	YM-26	0.0	0.0	180.0	190.0	195.0	0.0	0.003
100427.5	49139.4	4711.0	YM-26	0.0	0.0	180.0	195.0	200.0	0.0	-1.000
100427.5	49139.4	4706.0	YM-26	0.0	0.0	180.0	200.0	205.0	0.0	0.027
100427.5	49139.4	4701.0	YM-26	0.0	0.0	180.0	205.0	210.0	0.0	0.061
100427.5	49139.4	4696.0	YM-26	0.0	0.0	180.0	210.0	215.0	0.0	0.039
100427.5	49139.4	4691.0	YM-26	0.0	0.0	180.0	215.0	220.0	0.0	0.021
100427.5	49139.4	4686.0	YM-26	0.0	0.0	180.0	220.0	225.0	0.0	0.035
100427.5	49139.4	4681.0	YM-26	0.0	0.0	180.0	225.0	230.0	0.0	0.054

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100427.5	49139.4	4676.0	YM-26	0.0	0.0	180.0	230.0	235.0	0.0	0.012
100427.5	49139.4	4671.0	YM-26	0.0	0.0	180.0	235.0	240.0	0.0	0.035
100427.5	49139.4	4666.0	YM-26	0.0	0.0	180.0	240.0	245.0	0.0	0.017
100427.5	49139.4	4661.0	YM-26	0.0	0.0	180.0	245.0	250.0	0.0	0.030
100427.5	49139.4	4656.0	YM-26	0.0	0.0	180.0	250.0	255.0	0.0	0.031
100427.5	49139.4	4651.0	YM-26	0.0	0.0	180.0	255.0	260.0	0.0	0.013
100427.5	49139.4	4646.0	YM-26	0.0	0.0	180.0	260.0	265.0	0.0	0.149
100427.5	49139.4	4641.0	YM-26	0.0	0.0	180.0	265.0	270.0	0.0	0.099
100427.5	49139.4	4636.0	YM-26	0.0	0.0	180.0	270.0	275.0	0.0	0.013
100427.5	49139.4	4631.0	YM-26	0.0	0.0	180.0	275.0	280.0	0.0	0.102
100427.5	49139.4	4626.0	YM-26	0.0	0.0	180.0	280.0	285.0	0.0	0.183
100427.5	49139.4	4621.0	YM-26	0.0	0.0	180.0	285.0	290.0	0.0	0.051
100427.5	49139.4	4616.0	YM-26	0.0	0.0	180.0	290.0	295.0	0.0	0.015
100427.5	49139.4	4611.0	YM-26	0.0	0.0	180.0	295.0	300.0	0.0	0.009
100427.5	49139.4	4606.0	YM-26	0.0	0.0	180.0	300.0	305.0	0.0	0.019
100427.5	49139.4	4601.0	YM-26	0.0	0.0	180.0	305.0	310.0	0.0	0.013
100427.5	49139.4	4596.0	YM-26	0.0	0.0	180.0	310.0	315.0	0.0	0.014
100427.5	49139.4	4591.0	YM-26	0.0	0.0	180.0	315.0	320.0	0.0	0.027
100427.5	49139.4	4586.0	YM-26	0.0	0.0	180.0	320.0	325.0	0.0	0.007
100427.5	49139.4	4581.0	YM-26	0.0	0.0	180.0	325.0	330.0	0.0	0.004
100427.5	49139.4	4576.0	YM-26	0.0	0.0	180.0	330.0	335.0	0.0	0.002
100427.5	49139.4	4571.0	YM-26	0.0	0.0	180.0	335.0	340.0	0.0	0.037
100427.5	49139.4	4566.0	YM-26	0.0	0.0	180.0	340.0	345.0	0.0	0.003
100427.5	49139.4	4561.0	YM-26	0.0	0.0	180.0	345.0	350.0	0.0	0.001
100427.5	49139.4	4556.0	YM-26	0.0	0.0	180.0	350.0	355.0	0.0	0.002
100427.5	49139.4	4551.0	YM-26	0.0	0.0	180.0	355.0	360.0	0.0	0.004
100427.5	49139.4	4546.0	YM-26	0.0	0.0	180.0	360.0	365.0	0.0	0.004
100427.5	49139.4	4541.0	YM-26	0.0	0.0	180.0	365.0	370.0	0.0	0.004
100427.5	49139.4	4536.0	YM-26	0.0	0.0	180.0	370.0	375.0	0.0	0.003
100427.5	49139.4	4531.0	YM-26	0.0	0.0	180.0	375.0	380.0	0.0	0.010
100427.5	49139.4	4526.0	YM-26	0.0	0.0	180.0	380.0	385.0	0.0	0.002
100427.5	49139.4	4521.0	YM-26	0.0	0.0	180.0	385.0	390.0	0.0	0.004
100427.5	49139.4	4516.0	YM-26	0.0	0.0	180.0	390.0	395.0	0.0	0.010
100427.5	49139.4	4511.0	YM-26	0.0	0.0	180.0	395.0	400.0	0.0	0.005
100427.5	49139.4	4506.0	YM-26	0.0	0.0	180.0	400.0	405.0	0.0	0.002
100427.5	49139.4	4501.0	YM-26	0.0	0.0	180.0	405.0	410.0	0.0	0.003
100427.5	49139.4	4496.0	YM-26	0.0	0.0	180.0	410.0	415.0	0.0	0.002
100427.5	49139.4	4491.0	YM-26	0.0	0.0	180.0	415.0	420.0	0.0	0.002
100427.5	49139.4	4486.0	YM-26	0.0	0.0	180.0	420.0	425.0	0.0	0.002
100427.5	49139.4	4481.0	YM-26	0.0	0.0	180.0	425.0	430.0	0.0	0.002
100427.5	49139.4	4476.0	YM-26	0.0	0.0	180.0	430.0	435.0	0.0	0.001
100427.5	49139.4	4471.0	YM-26	0.0	0.0	180.0	435.0	440.0	0.0	0.003
100427.5	49139.4	4466.0	YM-26	0.0	0.0	180.0	440.0	445.0	0.0	0.002
100427.5	49139.4	4461.0	YM-26	0.0	0.0	180.0	445.0	450.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100923.0	49436.3	4835.4	YM-27	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100923.0	49436.3	4830.4	YM-27	0.0	0.0	180.0	0.0	5.0	0.0	-1.000
100923.0	49436.3	4825.4	YM-27	0.0	0.0	180.0	5.0	10.0	0.0	0.002
100923.0	49436.3	4820.4	YM-27	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100923.0	49436.3	4815.4	YM-27	0.0	0.0	180.0	15.0	20.0	0.0	0.002
100923.0	49436.3	4810.4	YM-27	0.0	0.0	180.0	20.0	25.0	0.0	0.003
100923.0	49436.3	4805.4	YM-27	0.0	0.0	180.0	25.0	30.0	0.0	0.007
100923.0	49436.3	4800.4	YM-27	0.0	0.0	180.0	30.0	35.0	0.0	0.002
100923.0	49436.3	4795.4	YM-27	0.0	0.0	180.0	35.0	40.0	0.0	0.018
100923.0	49436.3	4790.4	YM-27	0.0	0.0	180.0	40.0	45.0	0.0	0.003
100923.0	49436.3	4785.4	YM-27	0.0	0.0	180.0	45.0	50.0	0.0	0.001
100923.0	49436.3	4780.4	YM-27	0.0	0.0	180.0	50.0	55.0	0.0	0.001
100923.0	49436.3	4775.4	YM-27	0.0	0.0	180.0	55.0	60.0	0.0	0.006
100923.0	49436.3	4770.4	YM-27	0.0	0.0	180.0	60.0	65.0	0.0	0.041
100923.0	49436.3	4765.4	YM-27	0.0	0.0	180.0	65.0	70.0	0.0	0.018
100923.0	49436.3	4760.4	YM-27	0.0	0.0	180.0	70.0	75.0	0.0	0.023
100923.0	49436.3	4755.4	YM-27	0.0	0.0	180.0	75.0	80.0	0.0	0.003
100923.0	49436.3	4750.4	YM-27	0.0	0.0	180.0	80.0	85.0	0.0	0.003
100923.0	49436.3	4745.4	YM-27	0.0	0.0	180.0	85.0	90.0	0.0	0.012
100923.0	49436.3	4740.4	YM-27	0.0	0.0	180.0	90.0	95.0	0.0	0.030
100923.0	49436.3	4735.4	YM-27	0.0	0.0	180.0	95.0	100.0	0.0	0.003
100923.0	49436.3	4730.4	YM-27	0.0	0.0	180.0	100.0	105.0	0.0	0.004
100923.0	49436.3	4725.4	YM-27	0.0	0.0	180.0	105.0	110.0	0.0	0.002
100923.0	49436.3	4720.4	YM-27	0.0	0.0	180.0	110.0	115.0	0.0	0.002
100923.0	49436.3	4715.4	YM-27	0.0	0.0	180.0	115.0	120.0	0.0	0.006
100923.0	49436.3	4710.4	YM-27	0.0	0.0	180.0	120.0	125.0	0.0	0.042
100923.0	49436.3	4705.4	YM-27	0.0	0.0	180.0	125.0	130.0	0.0	0.007
100923.0	49436.3	4700.4	YM-27	0.0	0.0	180.0	130.0	135.0	0.0	0.008
100923.0	49436.3	4695.4	YM-27	0.0	0.0	180.0	135.0	140.0	0.0	0.007
100923.0	49436.3	4690.4	YM-27	0.0	0.0	180.0	140.0	145.0	0.0	0.003
100923.0	49436.3	4685.4	YM-27	0.0	0.0	180.0	145.0	150.0	0.0	0.004
100923.0	49436.3	4680.4	YM-27	0.0	0.0	180.0	150.0	155.0	0.0	0.002
100923.0	49436.3	4675.4	YM-27	0.0	0.0	180.0	155.0	160.0	0.0	0.001
100923.0	49436.3	4670.4	YM-27	0.0	0.0	180.0	160.0	165.0	0.0	0.002
100923.0	49436.3	4665.4	YM-27	0.0	0.0	180.0	165.0	170.0	0.0	0.014
100923.0	49436.3	4660.4	YM-27	0.0	0.0	180.0	170.0	175.0	0.0	0.001
100923.0	49436.3	4655.4	YM-27	0.0	0.0	180.0	175.0	180.0	0.0	0.003
100923.0	49436.3	4650.4	YM-27	0.0	0.0	180.0	180.0	185.0	0.0	0.002
100923.0	49436.3	4645.4	YM-27	0.0	0.0	180.0	185.0	190.0	0.0	0.002
100923.0	49436.3	4640.4	YM-27	0.0	0.0	180.0	190.0	195.0	0.0	0.004
100923.0	49436.3	4635.4	YM-27	0.0	0.0	180.0	195.0	200.0	0.0	0.004
100923.0	49436.3	4630.4	YM-27	0.0	0.0	180.0	200.0	205.0	0.0	0.004
100923.0	49436.3	4625.4	YM-27	0.0	0.0	180.0	205.0	210.0	0.0	0.022
100923.0	49436.3	4620.4	YM-27	0.0	0.0	180.0	210.0	215.0	0.0	0.002
100923.0	49436.3	4615.4	YM-27	0.0	0.0	180.0	215.0	220.0	0.0	0.001
100923.0	49436.3	4610.4	YM-27	0.0	0.0	180.0	220.0	225.0	0.0	0.001
100923.0	49436.3	4605.4	YM-27	0.0	0.0	180.0	225.0	230.0	0.0	0.003

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100923.0	49436.3	4600.4	YM-27	0.0	0.0	180.0	230.0	235.0	0.0	0.002
100923.0	49436.3	4595.4	YM-27	0.0	0.0	180.0	235.0	240.0	0.0	0.031
100923.0	49436.3	4590.4	YM-27	0.0	0.0	180.0	240.0	245.0	0.0	0.032
100923.0	49436.3	4585.4	YM-27	0.0	0.0	180.0	245.0	250.0	0.0	0.013
100923.0	49436.3	4580.4	YM-27	0.0	0.0	180.0	250.0	255.0	0.0	0.013
100923.0	49436.3	4575.4	YM-27	0.0	0.0	180.0	255.0	260.0	0.0	0.013
100923.0	49436.3	4570.4	YM-27	0.0	0.0	180.0	260.0	265.0	0.0	0.012
100923.0	49436.3	4565.4	YM-27	0.0	0.0	180.0	265.0	270.0	0.0	0.003
100923.0	49436.3	4560.4	YM-27	0.0	0.0	180.0	270.0	275.0	0.0	0.004
100923.0	49436.3	4555.4	YM-27	0.0	0.0	180.0	275.0	280.0	0.0	0.001
100923.0	49436.3	4550.4	YM-27	0.0	0.0	180.0	280.0	285.0	0.0	0.003
100923.0	49436.3	4545.4	YM-27	0.0	0.0	180.0	285.0	290.0	0.0	0.001
100923.0	49436.3	4540.4	YM-27	0.0	0.0	180.0	290.0	295.0	0.0	0.004
100923.0	49436.3	4535.4	YM-27	0.0	0.0	180.0	295.0	300.0	0.0	0.007
100923.0	49436.3	4530.4	YM-27	0.0	0.0	180.0	300.0	305.0	0.0	0.034
100923.0	49436.3	4525.4	YM-27	0.0	0.0	180.0	305.0	310.0	0.0	0.037
100923.0	49436.3	4520.4	YM-27	0.0	0.0	180.0	310.0	315.0	0.0	0.028
100923.0	49436.3	4515.4	YM-27	0.0	0.0	180.0	315.0	320.0	0.0	0.003
100923.0	49436.3	4510.4	YM-27	0.0	0.0	180.0	320.0	325.0	0.0	0.002
100923.0	49436.3	4505.4	YM-27	0.0	0.0	180.0	325.0	330.0	0.0	0.002
100923.0	49436.3	4500.4	YM-27	0.0	0.0	180.0	330.0	335.0	0.0	0.001
100923.0	49436.3	4495.4	YM-27	0.0	0.0	180.0	335.0	340.0	0.0	0.000
100923.0	49436.3	4490.4	YM-27	0.0	0.0	180.0	340.0	345.0	0.0	0.000
100923.0	49436.3	4485.4	YM-27	0.0	0.0	180.0	345.0	350.0	0.0	0.000
100923.0	49436.3	4480.4	YM-27	0.0	0.0	180.0	350.0	355.0	0.0	0.001
100923.0	49436.3	4475.4	YM-27	0.0	0.0	180.0	355.0	360.0	0.0	0.000
100923.0	49436.3	4470.4	YM-27	0.0	0.0	180.0	360.0	365.0	0.0	0.000
100923.0	49436.3	4465.4	YM-27	0.0	0.0	180.0	365.0	370.0	0.0	0.000
100923.0	49436.3	4460.4	YM-27	0.0	0.0	180.0	370.0	375.0	0.0	0.000
100923.0	49436.3	4455.4	YM-27	0.0	0.0	180.0	375.0	380.0	0.0	0.002
100923.0	49436.3	4450.4	YM-27	0.0	0.0	180.0	380.0	385.0	0.0	0.001
100923.0	49436.3	4445.4	YM-27	0.0	0.0	180.0	385.0	390.0	0.0	0.001
100923.0	49436.3	4440.4	YM-27	0.0	0.0	180.0	390.0	395.0	0.0	0.002
100923.0	49436.3	4435.4	YM-27	0.0	0.0	180.0	395.0	400.0	0.0	0.000
100923.0	49436.3	4430.4	YM-27	0.0	0.0	180.0	400.0	405.0	0.0	0.001
100923.0	49436.3	4425.4	YM-27	0.0	0.0	180.0	405.0	410.0	0.0	0.066
100923.0	49436.3	4420.4	YM-27	0.0	0.0	180.0	410.0	415.0	0.0	0.001
100923.0	49436.3	4415.4	YM-27	0.0	0.0	180.0	415.0	420.0	0.0	0.001
100923.0	49436.3	4410.4	YM-27	0.0	0.0	180.0	420.0	425.0	0.0	0.005
100923.0	49436.3	4405.4	YM-27	0.0	0.0	180.0	425.0	430.0	0.0	0.001
100923.0	49436.3	4400.4	YM-27	0.0	0.0	180.0	430.0	435.0	0.0	0.001
100923.0	49436.3	4395.4	YM-27	0.0	0.0	180.0	435.0	440.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100959.3	49648.0	4817.0	YM-28	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100959.3	49648.0	4812.0	YM-28	0.0	0.0	180.0	0.0	5.0	0.0	0.014
100959.3	49648.0	4807.0	YM-28	0.0	0.0	180.0	5.0	10.0	0.0	0.002
100959.3	49648.0	4802.0	YM-28	0.0	0.0	180.0	10.0	15.0	0.0	0.003
100959.3	49648.0	4797.0	YM-28	0.0	0.0	180.0	15.0	20.0	0.0	0.008
100959.3	49648.0	4792.0	YM-28	0.0	0.0	180.0	20.0	25.0	0.0	0.002
100959.3	49648.0	4787.0	YM-28	0.0	0.0	180.0	25.0	30.0	0.0	0.004
100959.3	49648.0	4782.0	YM-28	0.0	0.0	180.0	30.0	35.0	0.0	0.006
100959.3	49648.0	4777.0	YM-28	0.0	0.0	180.0	35.0	40.0	0.0	0.006
100959.3	49648.0	4772.0	YM-28	0.0	0.0	180.0	40.0	45.0	0.0	0.029
100959.3	49648.0	4767.0	YM-28	0.0	0.0	180.0	45.0	50.0	0.0	0.004
100959.3	49648.0	4762.0	YM-28	0.0	0.0	180.0	50.0	55.0	0.0	0.005
100959.3	49648.0	4757.0	YM-28	0.0	0.0	180.0	55.0	60.0	0.0	0.002
100959.3	49648.0	4752.0	YM-28	0.0	0.0	180.0	60.0	65.0	0.0	0.003
100959.3	49648.0	4747.0	YM-28	0.0	0.0	180.0	65.0	70.0	0.0	0.005
100959.3	49648.0	4742.0	YM-28	0.0	0.0	180.0	70.0	75.0	0.0	0.002
100959.3	49648.0	4737.0	YM-28	0.0	0.0	180.0	75.0	80.0	0.0	0.001
100959.3	49648.0	4732.0	YM-28	0.0	0.0	180.0	80.0	85.0	0.0	0.002
100959.3	49648.0	4727.0	YM-28	0.0	0.0	180.0	85.0	90.0	0.0	0.006
100959.3	49648.0	4722.0	YM-28	0.0	0.0	180.0	90.0	95.0	0.0	0.006
100959.3	49648.0	4717.0	YM-28	0.0	0.0	180.0	95.0	100.0	0.0	0.088
100959.3	49648.0	4712.0	YM-28	0.0	0.0	180.0	100.0	105.0	0.0	0.026
100959.3	49648.0	4707.0	YM-28	0.0	0.0	180.0	105.0	110.0	0.0	0.006
100959.3	49648.0	4702.0	YM-28	0.0	0.0	180.0	110.0	115.0	0.0	0.021
100959.3	49648.0	4697.0	YM-28	0.0	0.0	180.0	115.0	120.0	0.0	0.038
100959.3	49648.0	4692.0	YM-28	0.0	0.0	180.0	120.0	125.0	0.0	0.026
100959.3	49648.0	4687.0	YM-28	0.0	0.0	180.0	125.0	130.0	0.0	0.011
100959.3	49648.0	4682.0	YM-28	0.0	0.0	180.0	130.0	135.0	0.0	0.004
100959.3	49648.0	4677.0	YM-28	0.0	0.0	180.0	135.0	140.0	0.0	0.029
100959.3	49648.0	4672.0	YM-28	0.0	0.0	180.0	140.0	145.0	0.0	0.031
100959.3	49648.0	4667.0	YM-28	0.0	0.0	180.0	145.0	150.0	0.0	0.034
100959.3	49648.0	4662.0	YM-28	0.0	0.0	180.0	150.0	155.0	0.0	0.006
100959.3	49648.0	4657.0	YM-28	0.0	0.0	180.0	155.0	160.0	0.0	0.036
100959.3	49648.0	4652.0	YM-28	0.0	0.0	180.0	160.0	165.0	0.0	0.012
100959.3	49648.0	4647.0	YM-28	0.0	0.0	180.0	165.0	170.0	0.0	0.024
100959.3	49648.0	4642.0	YM-28	0.0	0.0	180.0	170.0	175.0	0.0	0.003
100959.3	49648.0	4637.0	YM-28	0.0	0.0	180.0	175.0	180.0	0.0	0.010
100959.3	49648.0	4632.0	YM-28	0.0	0.0	180.0	180.0	185.0	0.0	0.022
100959.3	49648.0	4627.0	YM-28	0.0	0.0	180.0	185.0	190.0	0.0	0.031
100959.3	49648.0	4622.0	YM-28	0.0	0.0	180.0	190.0	195.0	0.0	0.024
100959.3	49648.0	4617.0	YM-28	0.0	0.0	180.0	195.0	200.0	0.0	0.025
100959.3	49648.0	4612.0	YM-28	0.0	0.0	180.0	200.0	205.0	0.0	0.019
100959.3	49648.0	4607.0	YM-28	0.0	0.0	180.0	205.0	210.0	0.0	0.017
100959.3	49648.0	4602.0	YM-28	0.0	0.0	180.0	210.0	215.0	0.0	0.028
100959.3	49648.0	4597.0	YM-28	0.0	0.0	180.0	215.0	220.0	0.0	0.004
100959.3	49648.0	4592.0	YM-28	0.0	0.0	180.0	220.0	225.0	0.0	0.006
100959.3	49648.0	4587.0	YM-28	0.0	0.0	180.0	225.0	230.0	0.0	0.043

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100959.3	49648.0	4582.0	YM-28	0.0	0.0	180.0	230.0	235.0	0.0	0.003
100959.3	49648.0	4577.0	YM-28	0.0	0.0	180.0	235.0	240.0	0.0	0.073
100959.3	49648.0	4572.0	YM-28	0.0	0.0	180.0	240.0	245.0	0.0	0.049
100959.3	49648.0	4567.0	YM-28	0.0	0.0	180.0	245.0	250.0	0.0	0.002
100959.3	49648.0	4562.0	YM-28	0.0	0.0	180.0	250.0	255.0	0.0	0.001
100959.3	49648.0	4557.0	YM-28	0.0	0.0	180.0	255.0	260.0	0.0	0.002
100959.3	49648.0	4552.0	YM-28	0.0	0.0	180.0	260.0	265.0	0.0	0.001
100959.3	49648.0	4547.0	YM-28	0.0	0.0	180.0	265.0	270.0	0.0	0.001
100959.3	49648.0	4542.0	YM-28	0.0	0.0	180.0	270.0	275.0	0.0	0.002
100959.3	49648.0	4537.0	YM-28	0.0	0.0	180.0	275.0	280.0	0.0	0.001
100959.3	49648.0	4532.0	YM-28	0.0	0.0	180.0	280.0	285.0	0.0	0.002
100959.3	49648.0	4527.0	YM-28	0.0	0.0	180.0	285.0	290.0	0.0	0.001
100959.3	49648.0	4522.0	YM-28	0.0	0.0	180.0	290.0	295.0	0.0	0.000
100959.3	49648.0	4517.0	YM-28	0.0	0.0	180.0	295.0	300.0	0.0	0.001
100959.3	49648.0	4512.0	YM-28	0.0	0.0	180.0	300.0	305.0	0.0	0.002
100959.3	49648.0	4507.0	YM-28	0.0	0.0	180.0	305.0	310.0	0.0	0.001
100959.3	49648.0	4502.0	YM-28	0.0	0.0	180.0	310.0	315.0	0.0	0.004
100959.3	49648.0	4497.0	YM-28	0.0	0.0	180.0	315.0	320.0	0.0	0.002
100959.3	49648.0	4492.0	YM-28	0.0	0.0	180.0	320.0	325.0	0.0	0.001
100959.3	49648.0	4487.0	YM-28	0.0	0.0	180.0	325.0	330.0	0.0	0.002
100959.3	49648.0	4482.0	YM-28	0.0	0.0	180.0	330.0	335.0	0.0	0.005
100959.3	49648.0	4477.0	YM-28	0.0	0.0	180.0	335.0	340.0	0.0	0.003
100959.3	49648.0	4472.0	YM-28	0.0	0.0	180.0	340.0	345.0	0.0	0.002
100959.3	49648.0	4467.0	YM-28	0.0	0.0	180.0	345.0	350.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100118.7	48832.5	4858.6	YM-29	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100118.7	48832.5	4853.6	YM-29	0.0	0.0	180.0	0.0	5.0	0.0	0.002
100118.7	48832.5	4848.6	YM-29	0.0	0.0	180.0	5.0	10.0	0.0	0.001
100118.7	48832.5	4843.6	YM-29	0.0	0.0	180.0	10.0	15.0	0.0	0.001
100118.7	48832.5	4838.6	YM-29	0.0	0.0	180.0	15.0	20.0	0.0	0.000
100118.7	48832.5	4833.6	YM-29	0.0	0.0	180.0	20.0	25.0	0.0	0.006
100118.7	48832.5	4828.6	YM-29	0.0	0.0	180.0	25.0	30.0	0.0	0.001
100118.7	48832.5	4823.6	YM-29	0.0	0.0	180.0	30.0	35.0	0.0	0.001
100118.7	48832.5	4818.6	YM-29	0.0	0.0	180.0	35.0	40.0	0.0	0.002
100118.7	48832.5	4813.6	YM-29	0.0	0.0	180.0	40.0	45.0	0.0	0.001
100118.7	48832.5	4808.6	YM-29	0.0	0.0	180.0	45.0	50.0	0.0	0.004
100118.7	48832.5	4803.6	YM-29	0.0	0.0	180.0	50.0	55.0	0.0	0.006
100118.7	48832.5	4798.6	YM-29	0.0	0.0	180.0	55.0	60.0	0.0	0.001
100118.7	48832.5	4793.6	YM-29	0.0	0.0	180.0	60.0	65.0	0.0	0.000
100118.7	48832.5	4788.6	YM-29	0.0	0.0	180.0	65.0	70.0	0.0	0.000
100118.7	48832.5	4783.6	YM-29	0.0	0.0	180.0	70.0	75.0	0.0	0.000
100118.7	48832.5	4778.6	YM-29	0.0	0.0	180.0	75.0	80.0	0.0	0.001
100118.7	48832.5	4773.6	YM-29	0.0	0.0	180.0	80.0	85.0	0.0	0.000
100118.7	48832.5	4768.6	YM-29	0.0	0.0	180.0	85.0	90.0	0.0	0.001
100118.7	48832.5	4763.6	YM-29	0.0	0.0	180.0	90.0	95.0	0.0	0.001
100118.7	48832.5	4758.6	YM-29	0.0	0.0	180.0	95.0	100.0	0.0	0.000
100118.7	48832.5	4753.6	YM-29	0.0	0.0	180.0	100.0	105.0	0.0	0.001
100118.7	48832.5	4748.6	YM-29	0.0	0.0	180.0	105.0	110.0	0.0	0.000
100118.7	48832.5	4743.6	YM-29	0.0	0.0	180.0	110.0	115.0	0.0	0.001
100118.7	48832.5	4738.6	YM-29	0.0	0.0	180.0	115.0	120.0	0.0	0.002
100118.7	48832.5	4733.6	YM-29	0.0	0.0	180.0	120.0	125.0	0.0	0.002
100118.7	48832.5	4728.6	YM-29	0.0	0.0	180.0	125.0	130.0	0.0	0.003
100118.7	48832.5	4723.6	YM-29	0.0	0.0	180.0	130.0	135.0	0.0	0.002
100118.7	48832.5	4718.6	YM-29	0.0	0.0	180.0	135.0	140.0	0.0	0.003
100118.7	48832.5	4713.6	YM-29	0.0	0.0	180.0	140.0	145.0	0.0	0.004
100118.7	48832.5	4708.6	YM-29	0.0	0.0	180.0	145.0	150.0	0.0	0.002
100118.7	48832.5	4703.6	YM-29	0.0	0.0	180.0	150.0	155.0	0.0	0.000
100118.7	48832.5	4698.6	YM-29	0.0	0.0	180.0	155.0	160.0	0.0	0.000
100118.7	48832.5	4693.6	YM-29	0.0	0.0	180.0	160.0	165.0	0.0	0.001
100118.7	48832.5	4688.6	YM-29	0.0	0.0	180.0	165.0	170.0	0.0	0.002
100118.7	48832.5	4683.6	YM-29	0.0	0.0	180.0	170.0	175.0	0.0	0.002
100118.7	48832.5	4678.6	YM-29	0.0	0.0	180.0	175.0	180.0	0.0	0.002
100118.7	48832.5	4673.6	YM-29	0.0	0.0	180.0	180.0	185.0	0.0	0.000
100118.7	48832.5	4668.6	YM-29	0.0	0.0	180.0	185.0	190.0	0.0	0.003
100118.7	48832.5	4663.6	YM-29	0.0	0.0	180.0	190.0	195.0	0.0	0.004
100118.7	48832.5	4658.6	YM-29	0.0	0.0	180.0	195.0	200.0	0.0	0.003
100118.7	48832.5	4653.6	YM-29	0.0	0.0	180.0	200.0	205.0	0.0	0.009
100118.7	48832.5	4648.6	YM-29	0.0	0.0	180.0	205.0	210.0	0.0	0.008
100118.7	48832.5	4643.6	YM-29	0.0	0.0	180.0	210.0	215.0	0.0	0.006
100118.7	48832.5	4638.6	YM-29	0.0	0.0	180.0	215.0	220.0	0.0	0.008
100118.7	48832.5	4633.6	YM-29	0.0	0.0	180.0	220.0	225.0	0.0	0.046
100118.7	48832.5	4628.6	YM-29	0.0	0.0	180.0	225.0	230.0	0.0	0.019

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100118.7	48832.5	4623.6	YM-29	0.0	0.0	180.0	230.0	235.0	0.0	0.008
100118.7	48832.5	4618.6	YM-29	0.0	0.0	180.0	235.0	240.0	0.0	0.007
100118.7	48832.5	4613.6	YM-29	0.0	0.0	180.0	240.0	245.0	0.0	0.004
100118.7	48832.5	4608.6	YM-29	0.0	0.0	180.0	245.0	250.0	0.0	0.007
100118.7	48832.5	4603.6	YM-29	0.0	0.0	180.0	250.0	255.0	0.0	0.002
100118.7	48832.5	4598.6	YM-29	0.0	0.0	180.0	255.0	260.0	0.0	0.003
100118.7	48832.5	4593.6	YM-29	0.0	0.0	180.0	260.0	265.0	0.0	0.001
100118.7	48832.5	4588.6	YM-29	0.0	0.0	180.0	265.0	270.0	0.0	-1.000
100118.7	48832.5	4583.6	YM-29	0.0	0.0	180.0	270.0	275.0	0.0	0.006
100118.7	48832.5	4578.6	YM-29	0.0	0.0	180.0	275.0	280.0	0.0	0.002

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100331.8	49022.5	4894.1	YM-30	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100331.8	49022.5	4889.1	YM-30	0.0	0.0	180.0	0.0	5.0	0.0	0.628
100331.8	49022.5	4884.1	YM-30	0.0	0.0	180.0	5.0	10.0	0.0	0.011
100331.8	49022.5	4879.1	YM-30	0.0	0.0	180.0	10.0	15.0	0.0	0.003
100331.8	49022.5	4874.1	YM-30	0.0	0.0	180.0	15.0	20.0	0.0	0.002
100331.8	49022.5	4869.1	YM-30	0.0	0.0	180.0	20.0	25.0	0.0	0.001
100331.8	49022.5	4864.1	YM-30	0.0	0.0	180.0	25.0	30.0	0.0	0.004
100331.8	49022.5	4859.1	YM-30	0.0	0.0	180.0	30.0	35.0	0.0	0.002
100331.8	49022.5	4854.1	YM-30	0.0	0.0	180.0	35.0	40.0	0.0	0.004
100331.8	49022.5	4849.1	YM-30	0.0	0.0	180.0	40.0	45.0	0.0	0.003
100331.8	49022.5	4844.1	YM-30	0.0	0.0	180.0	45.0	50.0	0.0	0.002
100331.8	49022.5	4839.1	YM-30	0.0	0.0	180.0	50.0	55.0	0.0	0.001
100331.8	49022.5	4834.1	YM-30	0.0	0.0	180.0	55.0	60.0	0.0	0.001
100331.8	49022.5	4829.1	YM-30	0.0	0.0	180.0	60.0	65.0	0.0	0.002
100331.8	49022.5	4824.1	YM-30	0.0	0.0	180.0	65.0	70.0	0.0	0.002
100331.8	49022.5	4819.1	YM-30	0.0	0.0	180.0	70.0	75.0	0.0	0.001
100331.8	49022.5	4814.1	YM-30	0.0	0.0	180.0	75.0	80.0	0.0	0.002
100331.8	49022.5	4809.1	YM-30	0.0	0.0	180.0	80.0	85.0	0.0	0.006
100331.8	49022.5	4804.1	YM-30	0.0	0.0	180.0	85.0	90.0	0.0	0.001
100331.8	49022.5	4799.1	YM-30	0.0	0.0	180.0	90.0	95.0	0.0	0.002
100331.8	49022.5	4794.1	YM-30	0.0	0.0	180.0	95.0	100.0	0.0	0.001
100331.8	49022.5	4789.1	YM-30	0.0	0.0	180.0	100.0	105.0	0.0	0.002
100331.8	49022.5	4784.1	YM-30	0.0	0.0	180.0	105.0	110.0	0.0	0.001
100331.8	49022.5	4779.1	YM-30	0.0	0.0	180.0	110.0	115.0	0.0	0.001
100331.8	49022.5	4774.1	YM-30	0.0	0.0	180.0	115.0	120.0	0.0	0.009
100331.8	49022.5	4769.1	YM-30	0.0	0.0	180.0	120.0	125.0	0.0	0.003
100331.8	49022.5	4764.1	YM-30	0.0	0.0	180.0	125.0	130.0	0.0	0.001
100331.8	49022.5	4759.1	YM-30	0.0	0.0	180.0	130.0	135.0	0.0	0.001
100331.8	49022.5	4754.1	YM-30	0.0	0.0	180.0	135.0	140.0	0.0	0.002
100331.8	49022.5	4749.1	YM-30	0.0	0.0	180.0	140.0	145.0	0.0	0.000
100331.8	49022.5	4744.1	YM-30	0.0	0.0	180.0	145.0	150.0	0.0	0.001
100331.8	49022.5	4739.1	YM-30	0.0	0.0	180.0	150.0	155.0	0.0	0.003
100331.8	49022.5	4734.1	YM-30	0.0	0.0	180.0	155.0	160.0	0.0	0.000
100331.8	49022.5	4729.1	YM-30	0.0	0.0	180.0	160.0	165.0	0.0	0.000
100331.8	49022.5	4724.1	YM-30	0.0	0.0	180.0	165.0	170.0	0.0	0.002
100331.8	49022.5	4719.1	YM-30	0.0	0.0	180.0	170.0	175.0	0.0	0.007
100331.8	49022.5	4714.1	YM-30	0.0	0.0	180.0	175.0	180.0	0.0	0.022
100331.8	49022.5	4709.1	YM-30	0.0	0.0	180.0	180.0	185.0	0.0	0.019
100331.8	49022.5	4704.1	YM-30	0.0	0.0	180.0	185.0	190.0	0.0	0.004
100331.8	49022.5	4699.1	YM-30	0.0	0.0	180.0	190.0	195.0	0.0	0.006
100331.8	49022.5	4694.1	YM-30	0.0	0.0	180.0	195.0	200.0	0.0	0.011
100331.8	49022.5	4689.1	YM-30	0.0	0.0	180.0	200.0	205.0	0.0	0.002
100331.8	49022.5	4684.1	YM-30	0.0	0.0	180.0	205.0	210.0	0.0	0.001
100331.8	49022.5	4679.1	YM-30	0.0	0.0	180.0	210.0	215.0	0.0	0.002
100331.8	49022.5	4674.1	YM-30	0.0	0.0	180.0	215.0	220.0	0.0	0.030
100331.8	49022.5	4669.1	YM-30	0.0	0.0	180.0	220.0	225.0	0.0	0.009
100331.8	49022.5	4664.1	YM-30	0.0	0.0	180.0	225.0	230.0	0.0	0.016

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100331.8	49022.5	4659.1	YM-30	0.0	0.0	180.0	230.0	235.0	0.0	0.093
100331.8	49022.5	4654.1	YM-30	0.0	0.0	180.0	235.0	240.0	0.0	0.011
100331.8	49022.5	4649.1	YM-30	0.0	0.0	180.0	240.0	245.0	0.0	0.027
100331.8	49022.5	4644.1	YM-30	0.0	0.0	180.0	245.0	250.0	0.0	0.041
100331.8	49022.5	4639.1	YM-30	0.0	0.0	180.0	250.0	255.0	0.0	0.009
100331.8	49022.5	4634.1	YM-30	0.0	0.0	180.0	255.0	260.0	0.0	0.002
100331.8	49022.5	4629.1	YM-30	0.0	0.0	180.0	260.0	265.0	0.0	0.001
100331.8	49022.5	4624.1	YM-30	0.0	0.0	180.0	265.0	270.0	0.0	0.002
100331.8	49022.5	4619.1	YM-30	0.0	0.0	180.0	270.0	275.0	0.0	0.001
100331.8	49022.5	4614.1	YM-30	0.0	0.0	180.0	275.0	280.0	0.0	0.002
100331.8	49022.5	4609.1	YM-30	0.0	0.0	180.0	280.0	285.0	0.0	0.000
100331.8	49022.5	4604.1	YM-30	0.0	0.0	180.0	285.0	290.0	0.0	0.000
100331.8	49022.5	4599.1	YM-30	0.0	0.0	180.0	290.0	295.0	0.0	0.002
100331.8	49022.5	4594.1	YM-30	0.0	0.0	180.0	295.0	300.0	0.0	0.001
100331.8	49022.5	4589.1	YM-30	0.0	0.0	180.0	300.0	305.0	0.0	0.000
100331.8	49022.5	4584.1	YM-30	0.0	0.0	180.0	305.0	310.0	0.0	0.000
100331.8	49022.5	4579.1	YM-30	0.0	0.0	180.0	310.0	315.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100684.2	49253.6	4918.6	YM-31	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100684.2	49253.6	4913.6	YM-31	0.0	0.0	180.0	0.0	5.0	0.0	0.003
100684.2	49253.6	4908.6	YM-31	0.0	0.0	180.0	5.0	10.0	0.0	0.001
100684.2	49253.6	4903.6	YM-31	0.0	0.0	180.0	10.0	15.0	0.0	0.002
100684.2	49253.6	4898.6	YM-31	0.0	0.0	180.0	15.0	20.0	0.0	0.001
100684.2	49253.6	4893.6	YM-31	0.0	0.0	180.0	20.0	25.0	0.0	0.001
100684.2	49253.6	4888.6	YM-31	0.0	0.0	180.0	25.0	30.0	0.0	0.001
100684.2	49253.6	4883.6	YM-31	0.0	0.0	180.0	30.0	35.0	0.0	0.042
100684.2	49253.6	4878.6	YM-31	0.0	0.0	180.0	35.0	40.0	0.0	0.007
100684.2	49253.6	4873.6	YM-31	0.0	0.0	180.0	40.0	45.0	0.0	0.004
100684.2	49253.6	4868.6	YM-31	0.0	0.0	180.0	45.0	50.0	0.0	0.002
100684.2	49253.6	4863.6	YM-31	0.0	0.0	180.0	50.0	55.0	0.0	0.005
100684.2	49253.6	4858.6	YM-31	0.0	0.0	180.0	55.0	60.0	0.0	0.003
100684.2	49253.6	4853.6	YM-31	0.0	0.0	180.0	60.0	65.0	0.0	0.011
100684.2	49253.6	4848.6	YM-31	0.0	0.0	180.0	65.0	70.0	0.0	0.013
100684.2	49253.6	4843.6	YM-31	0.0	0.0	180.0	70.0	75.0	0.0	0.009
100684.2	49253.6	4838.6	YM-31	0.0	0.0	180.0	75.0	80.0	0.0	0.003
100684.2	49253.6	4833.6	YM-31	0.0	0.0	180.0	80.0	85.0	0.0	0.004
100684.2	49253.6	4828.6	YM-31	0.0	0.0	180.0	85.0	90.0	0.0	0.008
100684.2	49253.6	4823.6	YM-31	0.0	0.0	180.0	90.0	95.0	0.0	0.009
100684.2	49253.6	4818.6	YM-31	0.0	0.0	180.0	95.0	100.0	0.0	0.006
100684.2	49253.6	4813.6	YM-31	0.0	0.0	180.0	100.0	105.0	0.0	0.005
100684.2	49253.6	4808.6	YM-31	0.0	0.0	180.0	105.0	110.0	0.0	0.008
100684.2	49253.6	4803.6	YM-31	0.0	0.0	180.0	110.0	115.0	0.0	0.003
100684.2	49253.6	4798.6	YM-31	0.0	0.0	180.0	115.0	120.0	0.0	0.021
100684.2	49253.6	4793.6	YM-31	0.0	0.0	180.0	120.0	125.0	0.0	0.009
100684.2	49253.6	4788.6	YM-31	0.0	0.0	180.0	125.0	130.0	0.0	0.018
100684.2	49253.6	4783.6	YM-31	0.0	0.0	180.0	130.0	135.0	0.0	0.021
100684.2	49253.6	4778.6	YM-31	0.0	0.0	180.0	135.0	140.0	0.0	0.006
100684.2	49253.6	4773.6	YM-31	0.0	0.0	180.0	140.0	145.0	0.0	0.002
100684.2	49253.6	4768.6	YM-31	0.0	0.0	180.0	145.0	150.0	0.0	0.001
100684.2	49253.6	4763.6	YM-31	0.0	0.0	180.0	150.0	155.0	0.0	0.001
100684.2	49253.6	4758.6	YM-31	0.0	0.0	180.0	155.0	160.0	0.0	0.002
100684.2	49253.6	4753.6	YM-31	0.0	0.0	180.0	160.0	165.0	0.0	0.001
100684.2	49253.6	4748.6	YM-31	0.0	0.0	180.0	165.0	170.0	0.0	0.002
100684.2	49253.6	4743.6	YM-31	0.0	0.0	180.0	170.0	175.0	0.0	0.001
100684.2	49253.6	4738.6	YM-31	0.0	0.0	180.0	175.0	180.0	0.0	0.002
100684.2	49253.6	4733.6	YM-31	0.0	0.0	180.0	180.0	185.0	0.0	0.001
100684.2	49253.6	4728.6	YM-31	0.0	0.0	180.0	185.0	190.0	0.0	0.001
100684.2	49253.6	4723.6	YM-31	0.0	0.0	180.0	190.0	195.0	0.0	0.000
100684.2	49253.6	4718.6	YM-31	0.0	0.0	180.0	195.0	200.0	0.0	0.000
100684.2	49253.6	4713.6	YM-31	0.0	0.0	180.0	200.0	205.0	0.0	0.000
100684.2	49253.6	4708.6	YM-31	0.0	0.0	180.0	205.0	210.0	0.0	0.000
100684.2	49253.6	4703.6	YM-31	0.0	0.0	180.0	210.0	215.0	0.0	0.001
100684.2	49253.6	4698.6	YM-31	0.0	0.0	180.0	215.0	220.0	0.0	0.001
100684.2	49253.6	4693.6	YM-31	0.0	0.0	180.0	220.0	225.0	0.0	0.003
100684.2	49253.6	4688.6	YM-31	0.0	0.0	180.0	225.0	230.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100684.2	49253.6	4683.6	YM-31	0.0	0.0	180.0	230.0	235.0	0.0	0.000
100684.2	49253.6	4678.6	YM-31	0.0	0.0	180.0	235.0	240.0	0.0	0.000
100684.2	49253.6	4673.6	YM-31	0.0	0.0	180.0	240.0	245.0	0.0	0.004
100684.2	49253.6	4668.6	YM-31	0.0	0.0	180.0	245.0	250.0	0.0	0.001
100684.2	49253.6	4663.6	YM-31	0.0	0.0	180.0	250.0	255.0	0.0	0.002
100684.2	49253.6	4658.6	YM-31	0.0	0.0	180.0	255.0	260.0	0.0	0.001
100684.2	49253.6	4653.6	YM-31	0.0	0.0	180.0	260.0	265.0	0.0	0.002
100684.2	49253.6	4648.6	YM-31	0.0	0.0	180.0	265.0	270.0	0.0	0.002
100684.2	49253.6	4643.6	YM-31	0.0	0.0	180.0	270.0	275.0	0.0	0.001
100684.2	49253.6	4638.6	YM-31	0.0	0.0	180.0	275.0	280.0	0.0	0.002
100684.2	49253.6	4633.6	YM-31	0.0	0.0	180.0	280.0	285.0	0.0	0.001
100684.2	49253.6	4628.6	YM-31	0.0	0.0	180.0	285.0	290.0	0.0	0.002
100684.2	49253.6	4623.6	YM-31	0.0	0.0	180.0	290.0	295.0	0.0	0.001
100684.2	49253.6	4618.6	YM-31	0.0	0.0	180.0	295.0	300.0	0.0	0.003
100684.2	49253.6	4613.6	YM-31	0.0	0.0	180.0	300.0	305.0	0.0	0.002
100684.2	49253.6	4608.6	YM-31	0.0	0.0	180.0	305.0	310.0	0.0	0.008
100684.2	49253.6	4603.6	YM-31	0.0	0.0	180.0	310.0	315.0	0.0	0.023
100684.2	49253.6	4598.6	YM-31	0.0	0.0	180.0	315.0	320.0	0.0	0.004
100684.2	49253.6	4593.6	YM-31	0.0	0.0	180.0	320.0	325.0	0.0	0.006
100684.2	49253.6	4588.6	YM-31	0.0	0.0	180.0	325.0	330.0	0.0	0.002
100684.2	49253.6	4583.6	YM-31	0.0	0.0	180.0	330.0	335.0	0.0	0.003
100684.2	49253.6	4578.6	YM-31	0.0	0.0	180.0	335.0	340.0	0.0	0.003
100684.2	49253.6	4573.6	YM-31	0.0	0.0	180.0	340.0	345.0	0.0	0.002
100684.2	49253.6	4568.6	YM-31	0.0	0.0	180.0	345.0	350.0	0.0	0.001
100684.2	49253.6	4563.6	YM-31	0.0	0.0	180.0	350.0	355.0	0.0	0.005
100684.2	49253.6	4558.6	YM-31	0.0	0.0	180.0	355.0	360.0	0.0	0.002
100684.2	49253.6	4553.6	YM-31	0.0	0.0	180.0	360.0	365.0	0.0	0.008
100684.2	49253.6	4548.6	YM-31	0.0	0.0	180.0	365.0	370.0	0.0	0.093
100684.2	49253.6	4543.6	YM-31	0.0	0.0	180.0	370.0	375.0	0.0	0.067
100684.2	49253.6	4538.6	YM-31	0.0	0.0	180.0	375.0	380.0	0.0	0.044
100684.2	49253.6	4533.6	YM-31	0.0	0.0	180.0	380.0	385.0	0.0	0.015
100684.2	49253.6	4528.6	YM-31	0.0	0.0	180.0	385.0	390.0	0.0	0.005
100684.2	49253.6	4523.6	YM-31	0.0	0.0	180.0	390.0	395.0	0.0	0.002
100684.2	49253.6	4518.6	YM-31	0.0	0.0	180.0	395.0	400.0	0.0	0.001
100684.2	49253.6	4513.6	YM-31	0.0	0.0	180.0	400.0	405.0	0.0	0.002
100684.2	49253.6	4508.6	YM-31	0.0	0.0	180.0	405.0	410.0	0.0	0.002
100684.2	49253.6	4503.6	YM-31	0.0	0.0	180.0	410.0	415.0	0.0	0.000
100684.2	49253.6	4498.6	YM-31	0.0	0.0	180.0	415.0	420.0	0.0	0.000
100684.2	49253.6	4493.6	YM-31	0.0	0.0	180.0	420.0	425.0	0.0	0.000
100684.2	49253.6	4488.6	YM-31	0.0	0.0	180.0	425.0	430.0	0.0	0.000
100684.2	49253.6	4483.6	YM-31	0.0	0.0	180.0	430.0	435.0	0.0	0.000
100684.2	49253.6	4478.6	YM-31	0.0	0.0	180.0	435.0	440.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100873.5	49960.0	4920.2	YM-32	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100873.5	49960.0	4915.2	YM-32	0.0	0.0	180.0	0.0	5.0	0.0	0.026
100873.5	49960.0	4910.2	YM-32	0.0	0.0	180.0	5.0	10.0	0.0	0.005
100873.5	49960.0	4905.2	YM-32	0.0	0.0	180.0	10.0	15.0	0.0	0.008
100873.5	49960.0	4900.2	YM-32	0.0	0.0	180.0	15.0	20.0	0.0	0.038
100873.5	49960.0	4895.2	YM-32	0.0	0.0	180.0	20.0	25.0	0.0	0.011
100873.5	49960.0	4890.2	YM-32	0.0	0.0	180.0	25.0	30.0	0.0	0.003
100873.5	49960.0	4885.2	YM-32	0.0	0.0	180.0	30.0	35.0	0.0	0.002
100873.5	49960.0	4880.2	YM-32	0.0	0.0	180.0	35.0	40.0	0.0	0.002
100873.5	49960.0	4875.2	YM-32	0.0	0.0	180.0	40.0	45.0	0.0	0.004
100873.5	49960.0	4870.2	YM-32	0.0	0.0	180.0	45.0	50.0	0.0	0.005
100873.5	49960.0	4865.2	YM-32	0.0	0.0	180.0	50.0	55.0	0.0	0.003
100873.5	49960.0	4860.2	YM-32	0.0	0.0	180.0	55.0	60.0	0.0	0.005
100873.5	49960.0	4855.2	YM-32	0.0	0.0	180.0	60.0	65.0	0.0	0.011
100873.5	49960.0	4850.2	YM-32	0.0	0.0	180.0	65.0	70.0	0.0	0.013
100873.5	49960.0	4845.2	YM-32	0.0	0.0	180.0	70.0	75.0	0.0	0.020
100873.5	49960.0	4840.2	YM-32	0.0	0.0	180.0	75.0	80.0	0.0	0.010
100873.5	49960.0	4835.2	YM-32	0.0	0.0	180.0	80.0	85.0	0.0	0.004
100873.5	49960.0	4830.2	YM-32	0.0	0.0	180.0	85.0	90.0	0.0	0.008
100873.5	49960.0	4825.2	YM-32	0.0	0.0	180.0	90.0	95.0	0.0	0.021
100873.5	49960.0	4820.2	YM-32	0.0	0.0	180.0	95.0	100.0	0.0	0.008
100873.5	49960.0	4815.2	YM-32	0.0	0.0	180.0	100.0	105.0	0.0	0.011
100873.5	49960.0	4810.2	YM-32	0.0	0.0	180.0	105.0	110.0	0.0	0.004
100873.5	49960.0	4805.2	YM-32	0.0	0.0	180.0	110.0	115.0	0.0	0.003
100873.5	49960.0	4800.2	YM-32	0.0	0.0	180.0	115.0	120.0	0.0	0.001
100873.5	49960.0	4795.2	YM-32	0.0	0.0	180.0	120.0	125.0	0.0	0.022
100873.5	49960.0	4790.2	YM-32	0.0	0.0	180.0	125.0	130.0	0.0	0.009
100873.5	49960.0	4785.2	YM-32	0.0	0.0	180.0	130.0	135.0	0.0	0.023
100873.5	49960.0	4780.2	YM-32	0.0	0.0	180.0	135.0	140.0	0.0	0.022
100873.5	49960.0	4775.2	YM-32	0.0	0.0	180.0	140.0	145.0	0.0	0.015
100873.5	49960.0	4770.2	YM-32	0.0	0.0	180.0	145.0	150.0	0.0	0.009
100873.5	49960.0	4765.2	YM-32	0.0	0.0	180.0	150.0	155.0	0.0	0.009
100873.5	49960.0	4760.2	YM-32	0.0	0.0	180.0	155.0	160.0	0.0	0.003
100873.5	49960.0	4755.2	YM-32	0.0	0.0	180.0	160.0	165.0	0.0	0.014
100873.5	49960.0	4750.2	YM-32	0.0	0.0	180.0	165.0	170.0	0.0	0.022
100873.5	49960.0	4745.2	YM-32	0.0	0.0	180.0	170.0	175.0	0.0	0.009
100873.5	49960.0	4740.2	YM-32	0.0	0.0	180.0	175.0	180.0	0.0	0.003
100873.5	49960.0	4735.2	YM-32	0.0	0.0	180.0	180.0	185.0	0.0	0.014
100873.5	49960.0	4730.2	YM-32	0.0	0.0	180.0	185.0	190.0	0.0	0.007
100873.5	49960.0	4725.2	YM-32	0.0	0.0	180.0	190.0	195.0	0.0	0.027
100873.5	49960.0	4720.2	YM-32	0.0	0.0	180.0	195.0	200.0	0.0	0.026
100873.5	49960.0	4715.2	YM-32	0.0	0.0	180.0	200.0	205.0	0.0	0.001
100873.5	49960.0	4710.2	YM-32	0.0	0.0	180.0	205.0	210.0	0.0	0.001
100873.5	49960.0	4705.2	YM-32	0.0	0.0	180.0	210.0	215.0	0.0	0.003
100873.5	49960.0	4700.2	YM-32	0.0	0.0	180.0	215.0	220.0	0.0	0.000
100873.5	49960.0	4695.2	YM-32	0.0	0.0	180.0	220.0	225.0	0.0	0.000
100873.5	49960.0	4690.2	YM-32	0.0	0.0	180.0	225.0	230.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100873.5	49960.0	4685.2	YM-32	0.0	0.0	180.0	230.0	235.0	0.0	0.001
100873.5	49960.0	4680.2	YM-32	0.0	0.0	180.0	235.0	240.0	0.0	0.000
100873.5	49960.0	4675.2	YM-32	0.0	0.0	180.0	240.0	245.0	0.0	0.000
100873.5	49960.0	4670.2	YM-32	0.0	0.0	180.0	245.0	250.0	0.0	0.000
100873.5	49960.0	4665.2	YM-32	0.0	0.0	180.0	250.0	255.0	0.0	0.001
100873.5	49960.0	4660.2	YM-32	0.0	0.0	180.0	255.0	260.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100629.8	49440.8	4969.7	YM-33	0.0	0.0	0.0	0.0	0.0	0.0	0.000
100629.8	49440.8	4964.7	YM-33	0.0	0.0	180.0	0.0	5.0	0.0	0.007
100629.8	49440.8	4959.7	YM-33	0.0	0.0	180.0	5.0	10.0	0.0	0.006
100629.8	49440.8	4954.7	YM-33	0.0	0.0	180.0	10.0	15.0	0.0	0.004
100629.8	49440.8	4949.7	YM-33	0.0	0.0	180.0	15.0	20.0	0.0	0.020
100629.8	49440.8	4944.7	YM-33	0.0	0.0	180.0	20.0	25.0	0.0	0.014
100629.8	49440.8	4939.7	YM-33	0.0	0.0	180.0	25.0	30.0	0.0	0.005
100629.8	49440.8	4934.7	YM-33	0.0	0.0	180.0	30.0	35.0	0.0	0.018
100629.8	49440.8	4929.7	YM-33	0.0	0.0	180.0	35.0	40.0	0.0	0.018
100629.8	49440.8	4924.7	YM-33	0.0	0.0	180.0	40.0	45.0	0.0	0.010
100629.8	49440.8	4919.7	YM-33	0.0	0.0	180.0	45.0	50.0	0.0	0.016
100629.8	49440.8	4914.7	YM-33	0.0	0.0	180.0	50.0	55.0	0.0	0.021
100629.8	49440.8	4909.7	YM-33	0.0	0.0	180.0	55.0	60.0	0.0	0.003
100629.8	49440.8	4904.7	YM-33	0.0	0.0	180.0	60.0	65.0	0.0	0.002
100629.8	49440.8	4899.7	YM-33	0.0	0.0	180.0	65.0	70.0	0.0	0.004
100629.8	49440.8	4894.7	YM-33	0.0	0.0	180.0	70.0	75.0	0.0	0.002
100629.8	49440.8	4889.7	YM-33	0.0	0.0	180.0	75.0	80.0	0.0	0.002
100629.8	49440.8	4884.7	YM-33	0.0	0.0	180.0	80.0	85.0	0.0	0.003
100629.8	49440.8	4879.7	YM-33	0.0	0.0	180.0	85.0	90.0	0.0	0.001
100629.8	49440.8	4874.7	YM-33	0.0	0.0	180.0	90.0	95.0	0.0	0.001
100629.8	49440.8	4869.7	YM-33	0.0	0.0	180.0	95.0	100.0	0.0	0.002
100629.8	49440.8	4864.7	YM-33	0.0	0.0	180.0	100.0	105.0	0.0	0.001
100629.8	49440.8	4859.7	YM-33	0.0	0.0	180.0	105.0	110.0	0.0	0.001
100629.8	49440.8	4854.7	YM-33	0.0	0.0	180.0	110.0	115.0	0.0	0.001
100629.8	49440.8	4849.7	YM-33	0.0	0.0	180.0	115.0	120.0	0.0	0.003
100629.8	49440.8	4844.7	YM-33	0.0	0.0	180.0	120.0	125.0	0.0	0.002
100629.8	49440.8	4839.7	YM-33	0.0	0.0	180.0	125.0	130.0	0.0	0.003
100629.8	49440.8	4834.7	YM-33	0.0	0.0	180.0	130.0	135.0	0.0	0.003
100629.8	49440.8	4829.7	YM-33	0.0	0.0	180.0	135.0	140.0	0.0	0.003
100629.8	49440.8	4824.7	YM-33	0.0	0.0	180.0	140.0	145.0	0.0	0.002
100629.8	49440.8	4819.7	YM-33	0.0	0.0	180.0	145.0	150.0	0.0	0.002
100629.8	49440.8	4814.7	YM-33	0.0	0.0	180.0	150.0	155.0	0.0	0.001
100629.8	49440.8	4809.7	YM-33	0.0	0.0	180.0	155.0	160.0	0.0	0.001
100629.8	49440.8	4804.7	YM-33	0.0	0.0	180.0	160.0	165.0	0.0	0.002
100629.8	49440.8	4799.7	YM-33	0.0	0.0	180.0	165.0	170.0	0.0	0.004
100629.8	49440.8	4794.7	YM-33	0.0	0.0	180.0	170.0	175.0	0.0	0.002
100629.8	49440.8	4789.7	YM-33	0.0	0.0	180.0	175.0	180.0	0.0	0.006
100629.8	49440.8	4784.7	YM-33	0.0	0.0	180.0	180.0	185.0	0.0	0.002
100629.8	49440.8	4779.7	YM-33	0.0	0.0	180.0	185.0	190.0	0.0	0.003
100629.8	49440.8	4774.7	YM-33	0.0	0.0	180.0	190.0	195.0	0.0	0.003
100629.8	49440.8	4769.7	YM-33	0.0	0.0	180.0	195.0	200.0	0.0	0.002
100629.8	49440.8	4764.7	YM-33	0.0	0.0	180.0	200.0	205.0	0.0	0.003
100629.8	49440.8	4759.7	YM-33	0.0	0.0	180.0	205.0	210.0	0.0	0.001
100629.8	49440.8	4754.7	YM-33	0.0	0.0	180.0	210.0	215.0	0.0	0.001
100629.8	49440.8	4749.7	YM-33	0.0	0.0	180.0	215.0	220.0	0.0	0.005
100629.8	49440.8	4744.7	YM-33	0.0	0.0	180.0	220.0	225.0	0.0	0.003
100629.8	49440.8	4739.7	YM-33	0.0	0.0	180.0	225.0	230.0	0.0	0.001

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
100629.8	49440.8	4734.7	YM-33	0.0	0.0	180.0	230.0	235.0	0.0	0.002
100629.8	49440.8	4729.7	YM-33	0.0	0.0	180.0	235.0	240.0	0.0	0.001
100629.8	49440.8	4724.7	YM-33	0.0	0.0	180.0	240.0	245.0	0.0	0.001
100629.8	49440.8	4719.7	YM-33	0.0	0.0	180.0	245.0	250.0	0.0	0.002
100629.8	49440.8	4714.7	YM-33	0.0	0.0	180.0	250.0	255.0	0.0	0.004
100629.8	49440.8	4709.7	YM-33	0.0	0.0	180.0	255.0	260.0	0.0	0.001
100629.8	49440.8	4704.7	YM-33	0.0	0.0	180.0	260.0	265.0	0.0	0.000
100629.8	49440.8	4699.7	YM-33	0.0	0.0	180.0	265.0	270.0	0.0	0.002
100629.8	49440.8	4694.7	YM-33	0.0	0.0	180.0	270.0	275.0	0.0	0.001
100629.8	49440.8	4689.7	YM-33	0.0	0.0	180.0	275.0	280.0	0.0	0.015
100629.8	49440.8	4684.7	YM-33	0.0	0.0	180.0	280.0	285.0	0.0	0.074
100629.8	49440.8	4679.7	YM-33	0.0	0.0	180.0	285.0	290.0	0.0	0.092
100629.8	49440.8	4674.7	YM-33	0.0	0.0	180.0	290.0	295.0	0.0	0.081
100629.8	49440.8	4669.7	YM-33	0.0	0.0	180.0	295.0	300.0	0.0	0.079
100629.8	49440.8	4664.7	YM-33	0.0	0.0	180.0	300.0	305.0	0.0	0.074
100629.8	49440.8	4659.7	YM-33	0.0	0.0	180.0	305.0	310.0	0.0	0.081
100629.8	49440.8	4654.7	YM-33	0.0	0.0	180.0	310.0	315.0	0.0	0.019
100629.8	49440.8	4649.7	YM-33	0.0	0.0	180.0	315.0	320.0	0.0	0.019
100629.8	49440.8	4644.7	YM-33	0.0	0.0	180.0	320.0	325.0	0.0	0.029
100629.8	49440.8	4639.7	YM-33	0.0	0.0	180.0	325.0	330.0	0.0	0.048
100629.8	49440.8	4634.7	YM-33	0.0	0.0	180.0	330.0	335.0	0.0	0.023
100629.8	49440.8	4629.7	YM-33	0.0	0.0	180.0	335.0	340.0	0.0	0.069
100629.8	49440.8	4624.7	YM-33	0.0	0.0	180.0	340.0	345.0	0.0	0.013
100629.8	49440.8	4619.7	YM-33	0.0	0.0	180.0	345.0	350.0	0.0	0.038
100629.8	49440.8	4614.7	YM-33	0.0	0.0	180.0	350.0	355.0	0.0	0.025
100629.8	49440.8	4609.7	YM-33	0.0	0.0	180.0	355.0	360.0	0.0	0.075
100629.8	49440.8	4604.7	YM-33	0.0	0.0	180.0	360.0	365.0	0.0	0.061
100629.8	49440.8	4599.7	YM-33	0.0	0.0	180.0	365.0	370.0	0.0	0.008
100629.8	49440.8	4594.7	YM-33	0.0	0.0	180.0	370.0	375.0	0.0	0.002
100629.8	49440.8	4589.7	YM-33	0.0	0.0	180.0	375.0	380.0	0.0	0.007
100629.8	49440.8	4584.7	YM-33	0.0	0.0	180.0	380.0	385.0	0.0	0.009
100629.8	49440.8	4579.7	YM-33	0.0	0.0	180.0	385.0	390.0	0.0	0.002
100629.8	49440.8	4574.7	YM-33	0.0	0.0	180.0	390.0	395.0	0.0	0.001
100629.8	49440.8	4569.7	YM-33	0.0	0.0	180.0	395.0	400.0	0.0	0.000
100629.8	49440.8	4564.7	YM-33	0.0	0.0	180.0	400.0	405.0	0.0	0.001
100629.8	49440.8	4559.7	YM-33	0.0	0.0	180.0	405.0	410.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
101468.1	49898.0	4671.9	YM-34	0.0	0.0	0.0	0.0	0.0	0.0	0.000
101468.1	49898.0	4666.9	YM-34	0.0	0.0	180.0	0.0	5.0	0.0	0.003
101468.1	49898.0	4661.9	YM-34	0.0	0.0	180.0	5.0	10.0	0.0	0.002
101468.1	49898.0	4656.9	YM-34	0.0	0.0	180.0	10.0	15.0	0.0	0.004
101468.1	49898.0	4651.9	YM-34	0.0	0.0	180.0	15.0	20.0	0.0	0.002
101468.1	49898.0	4646.9	YM-34	0.0	0.0	180.0	20.0	25.0	0.0	0.002
101468.1	49898.0	4641.9	YM-34	0.0	0.0	180.0	25.0	30.0	0.0	0.012
101468.1	49898.0	4636.9	YM-34	0.0	0.0	180.0	30.0	35.0	0.0	0.004
101468.1	49898.0	4631.9	YM-34	0.0	0.0	180.0	35.0	40.0	0.0	0.005
101468.1	49898.0	4626.9	YM-34	0.0	0.0	180.0	40.0	45.0	0.0	0.010
101468.1	49898.0	4621.9	YM-34	0.0	0.0	180.0	45.0	50.0	0.0	0.008
101468.1	49898.0	4616.9	YM-34	0.0	0.0	180.0	50.0	55.0	0.0	0.015
101468.1	49898.0	4611.9	YM-34	0.0	0.0	180.0	55.0	60.0	0.0	0.002
101468.1	49898.0	4606.9	YM-34	0.0	0.0	180.0	60.0	65.0	0.0	0.001
101468.1	49898.0	4601.9	YM-34	0.0	0.0	180.0	65.0	70.0	0.0	0.002
101468.1	49898.0	4596.9	YM-34	0.0	0.0	180.0	70.0	75.0	0.0	0.002
101468.1	49898.0	4591.9	YM-34	0.0	0.0	180.0	75.0	80.0	0.0	0.001
101468.1	49898.0	4586.9	YM-34	0.0	0.0	180.0	80.0	85.0	0.0	0.021
101468.1	49898.0	4581.9	YM-34	0.0	0.0	180.0	85.0	90.0	0.0	0.009
101468.1	49898.0	4576.9	YM-34	0.0	0.0	180.0	90.0	95.0	0.0	0.001
101468.1	49898.0	4571.9	YM-34	0.0	0.0	180.0	95.0	100.0	0.0	0.001
101468.1	49898.0	4566.9	YM-34	0.0	0.0	180.0	100.0	105.0	0.0	0.002
101468.1	49898.0	4561.9	YM-34	0.0	0.0	180.0	105.0	110.0	0.0	0.005
101468.1	49898.0	4556.9	YM-34	0.0	0.0	180.0	110.0	115.0	0.0	0.012
101468.1	49898.0	4551.9	YM-34	0.0	0.0	180.0	115.0	120.0	0.0	0.006
101468.1	49898.0	4546.9	YM-34	0.0	0.0	180.0	120.0	125.0	0.0	0.021
101468.1	49898.0	4541.9	YM-34	0.0	0.0	180.0	125.0	130.0	0.0	0.014
101468.1	49898.0	4536.9	YM-34	0.0	0.0	180.0	130.0	135.0	0.0	0.008
101468.1	49898.0	4531.9	YM-34	0.0	0.0	180.0	135.0	140.0	0.0	0.002
101468.1	49898.0	4526.9	YM-34	0.0	0.0	180.0	140.0	145.0	0.0	0.001
101468.1	49898.0	4521.9	YM-34	0.0	0.0	180.0	145.0	150.0	0.0	0.016

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
101181.8	50199.4	4729.8	YM-35	0.0	0.0	0.0	0.0	0.0	0.0	0.000
101181.8	50199.4	4724.8	YM-35	0.0	0.0	180.0	0.0	5.0	0.0	0.002
101181.8	50199.4	4719.8	YM-35	0.0	0.0	180.0	5.0	10.0	0.0	0.002
101181.8	50199.4	4714.8	YM-35	0.0	0.0	180.0	10.0	15.0	0.0	0.004
101181.8	50199.4	4709.8	YM-35	0.0	0.0	180.0	15.0	20.0	0.0	0.017
101181.8	50199.4	4704.8	YM-35	0.0	0.0	180.0	20.0	25.0	0.0	0.008
101181.8	50199.4	4699.8	YM-35	0.0	0.0	180.0	25.0	30.0	0.0	0.003
101181.8	50199.4	4694.8	YM-35	0.0	0.0	180.0	30.0	35.0	0.0	0.006
101181.8	50199.4	4689.8	YM-35	0.0	0.0	180.0	35.0	40.0	0.0	0.016
101181.8	50199.4	4684.8	YM-35	0.0	0.0	180.0	40.0	45.0	0.0	0.001
101181.8	50199.4	4679.8	YM-35	0.0	0.0	180.0	45.0	50.0	0.0	0.003
101181.8	50199.4	4674.8	YM-35	0.0	0.0	180.0	50.0	55.0	0.0	0.002
101181.8	50199.4	4669.8	YM-35	0.0	0.0	180.0	55.0	60.0	0.0	0.002
101181.8	50199.4	4664.8	YM-35	0.0	0.0	180.0	60.0	65.0	0.0	0.004
101181.8	50199.4	4659.8	YM-35	0.0	0.0	180.0	65.0	70.0	0.0	0.001
101181.8	50199.4	4654.8	YM-35	0.0	0.0	180.0	70.0	75.0	0.0	0.001
101181.8	50199.4	4649.8	YM-35	0.0	0.0	180.0	75.0	80.0	0.0	0.001
101181.8	50199.4	4644.8	YM-35	0.0	0.0	180.0	80.0	85.0	0.0	0.002
101181.8	50199.4	4639.8	YM-35	0.0	0.0	180.0	85.0	90.0	0.0	0.001
101181.8	50199.4	4634.8	YM-35	0.0	0.0	180.0	90.0	95.0	0.0	0.001
101181.8	50199.4	4629.8	YM-35	0.0	0.0	180.0	95.0	100.0	0.0	0.000

YARNELL PROJECT

YAVAPAI COUNTY, ARIZONA

DRILL HOLE DATA BASE, 17-JUL-89 E.C.S.

NORTH	EAST	ELEV	ID	TD	AZ	VA	FROM	TO		AU
101319.7	50064.8	4705.2	YM-36	0.0	0.0	0.0	0.0	0.0	0.0	0.000
101319.7	50064.8	4700.2	YM-36	0.0	0.0	180.0	0.0	5.0	0.0	0.005
101319.7	50064.8	4695.2	YM-36	0.0	0.0	180.0	5.0	10.0	0.0	0.001
101319.7	50064.8	4690.2	YM-36	0.0	0.0	180.0	10.0	15.0	0.0	0.000
101319.7	50064.8	4685.2	YM-36	0.0	0.0	180.0	15.0	20.0	0.0	0.001
101319.7	50064.8	4680.2	YM-36	0.0	0.0	180.0	20.0	25.0	0.0	0.001
101319.7	50064.8	4675.2	YM-36	0.0	0.0	180.0	25.0	30.0	0.0	0.000
101319.7	50064.8	4670.2	YM-36	0.0	0.0	180.0	30.0	35.0	0.0	0.002
101319.7	50064.8	4665.2	YM-36	0.0	0.0	180.0	35.0	40.0	0.0	0.008
101319.7	50064.8	4660.2	YM-36	0.0	0.0	180.0	40.0	45.0	0.0	0.014
101319.7	50064.8	4655.2	YM-36	0.0	0.0	180.0	45.0	50.0	0.0	0.006
101319.7	50064.8	4650.2	YM-36	0.0	0.0	180.0	50.0	55.0	0.0	0.065
101319.7	50064.8	4645.2	YM-36	0.0	0.0	180.0	55.0	60.0	0.0	0.004
101319.7	50064.8	4640.2	YM-36	0.0	0.0	180.0	60.0	65.0	0.0	0.002
101319.7	50064.8	4635.2	YM-36	0.0	0.0	180.0	65.0	70.0	0.0	0.002
101319.7	50064.8	4630.2	YM-36	0.0	0.0	180.0	70.0	75.0	0.0	0.002
101319.7	50064.8	4625.2	YM-36	0.0	0.0	180.0	75.0	80.0	0.0	0.001
101319.7	50064.8	4620.2	YM-36	0.0	0.0	180.0	80.0	85.0	0.0	0.001
101319.7	50064.8	4615.2	YM-36	0.0	0.0	180.0	85.0	90.0	0.0	0.006
101319.7	50064.8	4610.2	YM-36	0.0	0.0	180.0	90.0	95.0	0.0	0.022
101319.7	50064.8	4605.2	YM-36	0.0	0.0	180.0	95.0	100.0	0.0	0.006
101319.7	50064.8	4600.2	YM-36	0.0	0.0	180.0	100.0	105.0	0.0	0.008
101319.7	50064.8	4595.2	YM-36	0.0	0.0	180.0	105.0	110.0	0.0	0.006
101319.7	50064.8	4590.2	YM-36	0.0	0.0	180.0	110.0	115.0	0.0	0.003
101319.7	50064.8	4585.2	YM-36	0.0	0.0	180.0	115.0	120.0	0.0	0.014
101319.7	50064.8	4580.2	YM-36	0.0	0.0	180.0	120.0	125.0	0.0	0.008
101319.7	50064.8	4575.2	YM-36	0.0	0.0	180.0	125.0	130.0	0.0	0.013
101319.7	50064.8	4570.2	YM-36	0.0	0.0	180.0	130.0	135.0	0.0	0.036
101319.7	50064.8	4565.2	YM-36	0.0	0.0	180.0	135.0	140.0	0.0	0.059
101319.7	50064.8	4560.2	YM-36	0.0	0.0	180.0	140.0	145.0	0.0	0.004
101319.7	50064.8	4555.2	YM-36	0.0	0.0	180.0	145.0	150.0	0.0	0.002
101319.7	50064.8	4550.2	YM-36	0.0	0.0	180.0	150.0	155.0	0.0	0.003
101319.7	50064.8	4545.2	YM-36	0.0	0.0	180.0	155.0	160.0	0.0	0.002
101319.7	50064.8	4540.2	YM-36	0.0	0.0	180.0	160.0	165.0	0.0	0.004
101319.7	50064.8	4535.2	YM-36	0.0	0.0	180.0	165.0	170.0	0.0	0.002
101319.7	50064.8	4530.2	YM-36	0.0	0.0	180.0	170.0	175.0	0.0	0.001
101319.7	50064.8	4525.2	YM-36	0.0	0.0	180.0	175.0	180.0	0.0	0.001

JDS

7/19

FROM: W. L. KURTZ

TO: JDSell

Here's Hintzelman's

Layton True Copy yet to come.

NOTE payment schedule

cc W.D. Gax

Rand Edgar & Sedun

Barristers & Solicitors

William A. Rand* Brian D. Edgar* Gregg J. Sedun*

2200 Hongkong Bank of Canada Bldg.
885 West Georgia Street
Vancouver, B.C. V6C 3E8
Tel. (604) 687-9931
Telefax (604) 681-7116

File No. 2003

VIA COURIER

July 18, 1989

Asarco Incorporated
1150 North 7th Avenue
Tucson, Arizona
85703

Attention: Mr. William L. Kurtz

Dear Sir:

Re: NORGOLD RESOURCES (US) INC.

Enclosed herewith please find a certified true copy of the Agreement and Option to Purchase dated June 30, 1989 between Forrest B. Heintzelman and Norgold Resources (US) Inc., for your information.

If you have any questions regarding the foregoing, please do not hesitate to contact the writer.

Yours very truly,

RAND EDGAR & SEDUN

Brian D. Edgar

bjb
Encl.
4306e

RECEIVED
JUL 19 1989
EXPLORATION DEPARTMENT

*Carrying on business through a personal law corporation

CERTIFIED TO BE A TRUE COPY

A NOTARY PUBLIC IN AND FOR THE PROVINCE OF BRITISH COLUMBIA

AGREEMENT AND OPTION TO PURCHASE

THIS AGREEMENT, made this 30 day of June, 1989, by and between FORREST B. HEINTZELMAN, a single man (herein "Heintzelman"), and NORGOLD RESOURCES (US) INC., a Delaware corporation (herein "Norgold");

W I T N E S S E T H :

RECITALS:

Heintzelman is the owner of the following described real property (herein the "Property"), situated in Yavapai County, Arizona, to-wit:

> MOTHER LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1201, located in the Weaver Mining District, United States Patent whereof is recorded in the office of the County Recorder of Yavapai County, Arizona, in Book 43 of Deeds, pages 296-300.

Norgold wishes to purchase and Heintzelman wishes to sell the Property on the terms contained herein.

AGREEMENT:

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. Option to Purchase. Heintzelman hereby grants to Norgold the exclusive right and option to purchase the Property (the "Option"), upon the terms and conditions contained herein.

2. Obligatory Payments. As consideration for the granting of the Option, Norgold shall pay to Heintzelman the total sum of $15,000.00, payable as follows:

(a) The sum of $5,000.00 upon the execution of this Agreement; and

(b) The sum of $5,000.00 on or before the date which is six months after the date of this Agreement; and

(c) The sum of $5,000.00 on or before the date which is twelve months after the date of this Agreement.

The obligatory payments set forth in this Paragraph 2 shall be paid by Norgold to Heintzelman whether or not the Option is exercised.

3. Additional Payments. In order to maintain the Option in effect, Norgold shall make the following payments to Heintzelman:

(a) The sum of $12,500.00 on or before the date which is eighteen months after the date of this Agreement; and

(b) The sum of $12,500.00 on or before the date which is twenty-four months after the date of this Agreement; and

(c) The sum of $10,000.00 on or before the date which is thirty-six months after the date of this Agreement.

The additional payments set forth in this Paragraph 3 shall not be obligatory, but the failure to make such additional payments shall result in the termination of the Option.

4. Method of Payment. All dollar amounts set out in this Agreement are United States dollars. Payments made by Norgold to Heintzelman pursuant to this Agreement shall be made by certified or cashier's check in United States dollars, delivered to Heintzelman's address as set forth in Paragraph 15.

5. Term of Option. The Option shall commence immediately upon the execution of this Agreement. The primary term of the Option shall terminate on the date which is twelve months after the date of this Agreement. Each payment made pursuant to Paragraph 3 shall extend the term of the Option until the due date of the next succeeding payment under Paragraph 3. Upon the failure of Norgold to pay any of the additional payments set forth in Paragraph 3, the same shall be considered a breach of a condition of this Agreement and Heintzelman shall be entitled to send termination notice in accordance with Paragraph 11.

6. Exercise of Option. Upon the receipt by Heintzelman of the total sum of $50,000.00 pursuant to Paragraphs 2 and 3, the Option shall for all purposes be deemed to have been exercised, and Norgold shall be the beneficial owner of the Property and shall be entitled to become the legal owner of the Property.

7. Delivery of Deed; Escrow. Forthwith upon the execution of this Agreement, Heintzelman shall execute a quit-claim deed (herein the "Deed"), in the form as evidenced by Exhibit "A" attached hereto, and made a part hereof by reference. Heintzelman shall deposit the Deed with First American Title Insurance Company of Yavapai, Inc. (the "Escrow Holder"), 600 West Gurley Street, Post Office Box 228, Prescott, Arizona 86302. Upon payment of the total sum of $50,000.00 pursuant to Paragraphs 2 and 3, the Escrow Holder shall deliver the Deed to Norgold, and Norgold shall be entitled to record the Deed in the office of the County Recorder of Yavapai County, Arizona. If the Option is terminated prior to its exercise, the Escrow Holder shall deliver the Deed to Heintzelman, and Norgold shall have no further interest in the Property. The Escrow Holder shall be entitled to rely upon the affidavit of Heintzelman or Norgold to the effect that the Option has been exercised or the Option has terminated, as the case may be, in delivering the Deed; provided that upon receiving the request from a party to receive the Deed, accompanied by an affidavit, the Escrow Holder shall send a copy of the affidavit to the other party together with a notice in writing advising the other party that the Escrow Holder intends to deliver the Deed thirty days after the date of such notice. At the end of such thirty-day period, the Escrow Holder shall be entitled to deliver the Deed as set out in its notice. The cost of engaging the

Escrow Holder shall be paid by Norgold. Norgold shall be entitled forthwith to record an executed counterpart of this Agreement in the office of the County Recorder of Yavapai County, Arizona, in order to give public notice of the existence of the Option. In the event Norgold does not exercise the Option, and the Option terminates, Norgold shall execute and deliver to Heintzelman a quit-claim deed embracing the Property, which Heintzelman shall be entitled to record in the office of the County Recorder of Yavapai County, Arizona, together with an affidavit of the Escrow Holder verifying that the Option terminated without exercise.

8. Mining Activities. Prior to the exercise of the Option, Norgold shall have the exclusive right to enter upon and occupy the Property and to conduct mineral exploration, development and mining activities thereon. Heintzelman shall not interfere with such activities in any way. In all events, the relationship of the parties is that of seller and buyer only, it being expressly understood that no agency of any kind has been created.

9. Representations by Heintzelman. Heintzelman represents that:

(a) He is the legal and beneficial owner of the Property, free and clear of all liens, charges or encumbrances, except as set forth on Exhibit "B" attached hereto, and made a part hereof by reference.

(b) He has the full right, title, power, capacity and authority to enter into this Agreement.

(c) No other firm, person or corporation has any interest in the Property that would conflict with the terms of this Agreement.

(d) He has received no notice of and has no knowledge of any violation of federal, state or local law relating to the Property.

Heintzelman makes no representations as to the condition of the Property and the same is being purchased in an "as is" condition by Norgold, and it shall be Norgold's duty and obligation during the Option period to determine the suitability of the Property and whether there is any outstanding environmental or other problems that may presently exist on or with relation to the Property.

10. Indemnification; Insurance. Norgold hereby agrees to indemnify, protect, defend and hold harmless Heintzelman from any claim, demand, suit, action, administrative determination or other proceeding whatsoever by any person arising or purportedly arising from or as a result of the mining operations, occupation, use or possession of the Property, including any injury or damage to any person or property by or from any act or event which occurs in, about or upon the Property during the term of the Option. During the term of the Option, Norgold agrees to insure the Property and all operations conducted thereon against such risks as Norgold shall determine (including public liability) in an amount not less than $1 million per occurrence. Such insurance shall be procured from substantial and responsible insurance companies

doing business in the State of Arizona. The policy of insurance shall name Heintzelman as an additional insured thereunder. Evidence of such insurance and the payment of premiums thereon shall be provided to Heintzelman within thirty days after the execution of this Agreement, and from time to time thereafter, upon request.

11. Termination. This Agreement may be terminated as follows:

> (a) By Heintzelman in the event of a breach of a term or condition of this Agreement by Norgold, provided that Heintzelman shall give notice in writing to Norgold setting out the details of the breach and allowing Norgold thirty days after delivery of the notice to remedy the breach, or, if the breach is of a kind that cannot be remedied within a thirty-day period, allowing Norgold a reasonable time to diligently and in good faith take all reasonable steps to remedy the breach. In the event that the breach is not remedied within the time allowed, this Agreement shall terminate and be null and void. Provided, however, that any such termination shall not relieve Norgold of the obligation to pay the obligatory payments required by Paragraph 2, which obligatory payments shall remain due and payable notwithstanding any such termination.
>
> (b) By Norgold, upon thirty days notice in writing to Heintzelman. In the event of the termination of this Agreement prior to the exercise of the Option, Norgold shall have a period of six months to remove from the Property anything brought to the Property by Norgold.

12. Compliance with Authorities. Any licenses or permits or permissions required for the mining of the Property

shall be obtained by Norgold at its sole expense. At Norgold's request, Heintzelman shall reasonably cooperate with Norgold in its efforts to obtain such necessary licenses, permits or permissions. In the event the Option terminates without being exercised, Norgold shall comply with all environmental and safety laws and regulations applicable to the Property in order that possession of the Property may be returned to Heintzelman in the condition as it existed as of the date of this Agreement with respect to environmental and safety matters. Heintzelman's satisfaction with the condition of the Property shall be confirmed for all purposes unless Heintzelman otherwise notifies Norgold in writing within sixty calendar days of the date of delivery of Norgold's termination notice described in Paragraph 11(b).

13. Real Property Taxes. Norgold shall pay all real property taxes, assessments and charges of any kind which become payable with respect to the Property during the term of the Option.

14. Governing Authority. This Agreement shall be interpreted in accordance with the laws of the State of Arizona and the parties agree to submit to the jurisdiction of the Arizona courts with respect to any action or suit arising under this Agreement or with respect hereto.

15. Notice. Wherever in this Agreement it shall be required or permitted that notice be given or served by either party to or on the other, such notice shall be given or served

and shall not be deemed to have been duly given or served unless in writing, and delivered by courier service, telefax or other similar means of recorded communication, addressed as follows:

(a) If to Norgold:

Norgold Resources (US) Inc.
2380 Harbour Centre
Post Office Box 12122
555 West Hastings Street
Vancouver, British Columbia
V6B 4N6

Telefax Number:

with copy to
Rand Edgar & Sedun
Barristers & Solicitors
2200-885 West Georgia Street
Vancouver, British Columbia
V6C 3E8

Telefax Number: (604) 681-7116

(b) If to Heintzelman:

Mr. Forrest B. Heintzelman
1315 Cedar Crest Boulevard
Allentown, Pennsylvania
18104

Copy to:

Edmund G. Hauff, Esquire
640 Hamilton Mall
Allentown, Pennsylvania
18101

Telefax Number: (215) 820-5214

or at such other address as may have been designated by one party in a notice served upon the other. Delivery shall be considered to have been made (a) on the date of delivery, if served by courier service, or (b) twenty-four hours after

transmission, if served by telefax or other similar means of recorded communication.

16. Assignment. Heintzelman may assign his interest in this Agreement. Norgold may assign its interest in this Agreement only with the prior written consent of Heintzelman, which consent shall not be unreasonably withheld. Notice of any such assignment shall be promptly given to the other party.

17. Suit. In any action or suit which may be brought by either party to enforce this Agreement, or to recover damages for the breach hereof, the court, sitting without a jury, shall award a reasonable amount as and for attorney's fees to the prevailing party.

18. Titles. The titles which are used following the number of each paragraph shall be used solely for convenience of reference and shall not affect the meaning, construction or effect of the provisions hereof.

19. Waiver. The waiver by either party of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition herein contained.

20. Number; Gender. The singular form of any word used herein shall include the plural, and vice versa. The use herein of a word of any gender shall include correlative words of all genders.

21. Amendments. This Agreement may be effectively amended, changed, modified or altered only by written instrument executed by the parties hereto.

22. Time of Essence. Time is of the essence of this Agreement.

23. Covenants Binding on Successors. The terms, covenants and conditions herein contained shall inure to the benefit of and shall be binding upon the parties hereto, their heirs, personal representatives, successors and permitted assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

FORREST B. HEINTZELMAN

NORGOLD RESOURCES (US) INC.

By _____
Its President

STATE OF PENNSYLVANIA)
) ss:
County of Lehigh)

The foregoing instrument was acknowledged before me this 30th day of June, 1989, by FORREST B. HEINTZELMAN, a single man.

Donna B. Waldt
Notary Public

My Commission Expires:
June 14, 1990

Notarial Seal
Donna B. Waldt, Notary Public
Allentown, Lehigh County
My Commission Expires June 14, 1990

Notary Public

My Commission Expires:
DOES NOT EXPIRE

COMMONWEALTH OF CANADA)
)
Province of British Columbia)

The foregoing instrument was acknowledged before me this 16 day of June, 1989, by C. MUAT, the President of NORGOLD RESOURCES (US) INC., a Delaware corporation, on behalf of the corporation.

Notary Public

My Commission Expires:

DOES NOT EXPIRE

QUIT-CLAIM DEED

For the consideration of TEN DOLLARS ($10.00), and other valuable considerations, FORREST B. HEINTZELMAN, a single man, as "Grantor", does hereby quit-claim to NORGOLD RESOURCES (US) INC., a Delaware corporation, as "Grantee", all right, title and interest in and to the following described real property situated in Yavapai County, Arizona, to-wit:

> MOTHER LODE MINING CLAIM, designated by the Surveyor General as Lot No. 1201, located in the Weaver Mining District, United States Patent whereof is recorded in the office of the County Recorder of Yavapai County, Arizona, in Book 43 of Deeds, pages 296-300.

DATED this _____ day of _____, 1989.

EXHIBIT

_____
FORREST B. HEINTZELMAN

Not To Be Signed

STATE OF PENNSYLVANIA)
) ss:
County of Lehigh)

The foregoing instrument was acknowledged before me this _____ day of _____, 1989, by FORREST B. HEINTZELMAN, a single man.

_____
Notary Public

My Commission Expires:

_____

EXHIBIT "A"

To JDS

Date 7/20 Time 11:45

WHILE YOU WERE OUT

M Jerry Haggard

of

Phone 1-234-8832

Area Code Number Extension

TELEPHONED		PLEASE CALL	✓
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	
RETURNED YOUR CALL			

Message

M.

Operator

Perimeter!

AMPAD EFFICIENCY®

23-000 50 SHT. PAD
23-001 250 SHT. DISPENSER BOX

FAX

7/20/89

FROM: W. L. KURTZ

TO: LEO SMITH

ASARCO - NORGOLD AGREEMENTS

AREA OF INTEREST IN YOUR REVISED AGREEMENT ARTICLE VI, 6.0 Additional Acquisitions

6.1 should describe only the following lands

T10N, R5W sec. 1 through 4, E½ 8, 9 through 16, E½ 17, E½ 20, 21 through 28, N½ 34, N½ 35, N½ 36

T10N, R4W sec 6, 7, W½ 17, 18, 19, W½ 20, 30

This is <u>all</u> of the land to be included in the area of interest.

This essential represents a 3 mile radius from the top of Yarnell Hill.

cc. Hoat by FAX
Huggard by FAX

✓ Sec. 32 thru 36 T11N R5W

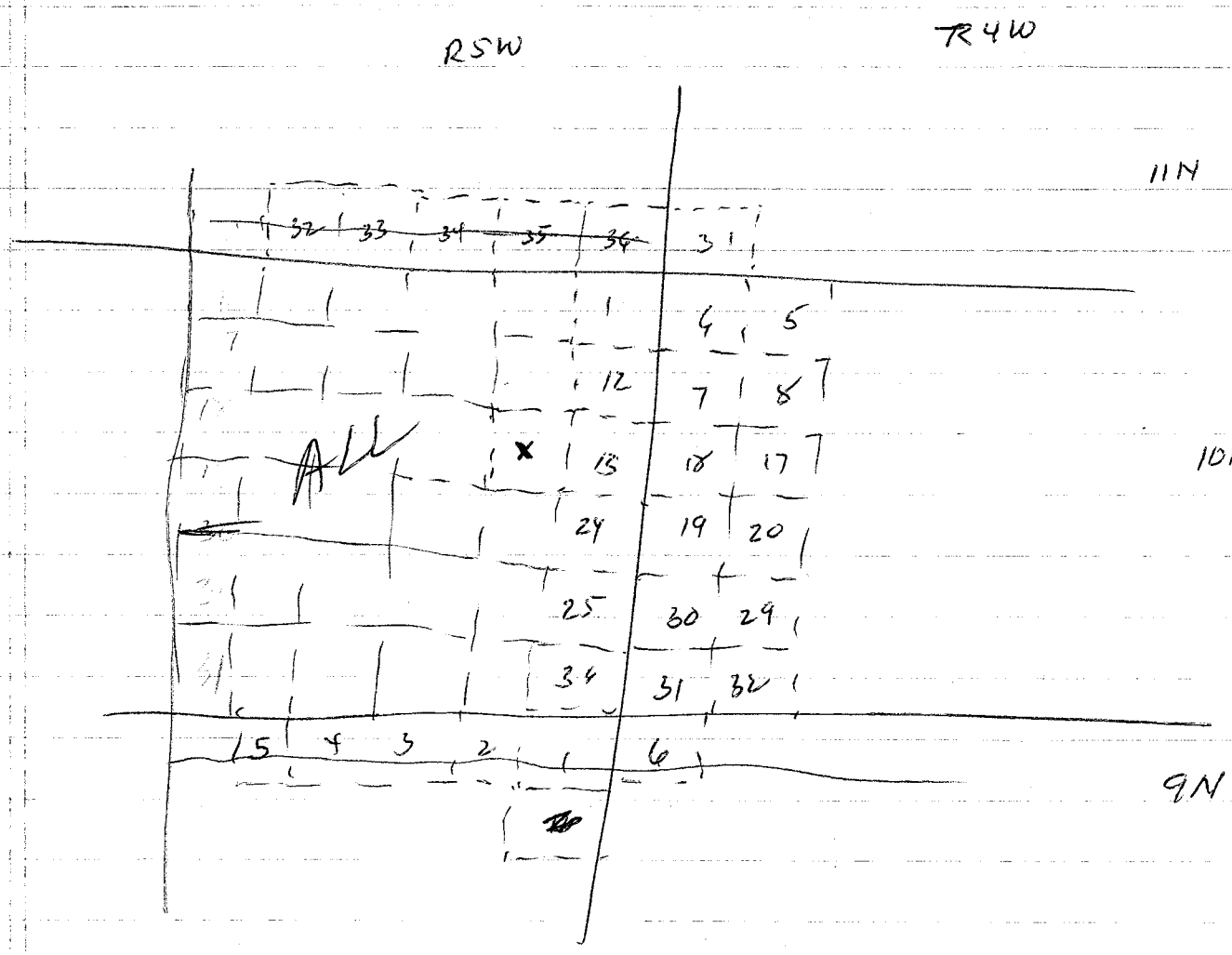
✓ Sec. 31 T11N R4W

✓ Sec. 1 - 36 from T10N R5W

✓ Sec. 5 thru 8
✓ Sec. 17 thru 20 T10N R4W
✓ Sec. 29 thru 32

✓ Sec. 1 thru 5 T9N R5W

✓ Sec. 6 T9N R4W



LAW OFFICES

Evans, Kitchel & Jenckes, P.C.

2600 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85004-3099
TELEPHONE (602) 234-2600

TO James D. Sell

FROM Jerry L. Haggard DATE July 20, 1989

SUBJECT TELECOPY

WE WILL BE TRANSMITTING 2 PAGES INCLUDING THIS COVER SHEET.

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL (602) 240-2472.

REMARKS:

Attached is the legal description of the Norgold/Asarco Area of Interest which is intended to encompass the 3 mile area from the perimeter of the property originally agreed upon.

ASARCO Incorp

JUL 20 1989

SW Exploration

ARTICLE VI

6.0 ADDITIONAL ACQUISITIONS

6.1 Norgold shall, as directed by Asarco and at Asarco's expense, locate additional unpatented mining claims and apply for additional State of Arizona prospecting permits within an area (hereinafter called the "Area of Interest") described as follows: Sections 32 through 36, T. 11 N., R. 5 W.; Section 31, T. 11 N., R. 4 W.; Sections 1 through 36, T. 10 N., R. 5 W.; Section 5 through 8, 17 through 20 and 29 through 32, T. 10 N., R. 4 W.; Sections 1 through 5, T. 9 N., R. 5 W.; and Section 6, T. 9 N., R. 4 W., G.& S.R.M., Yavapai County, Arizona, which claims and prospecting permits shall then become part of the Property and subject to this Agreement.

ASARCO Inco

JUL 20 1989

SW Exploration

If we add another 2000' to accomodate the claim block, then:

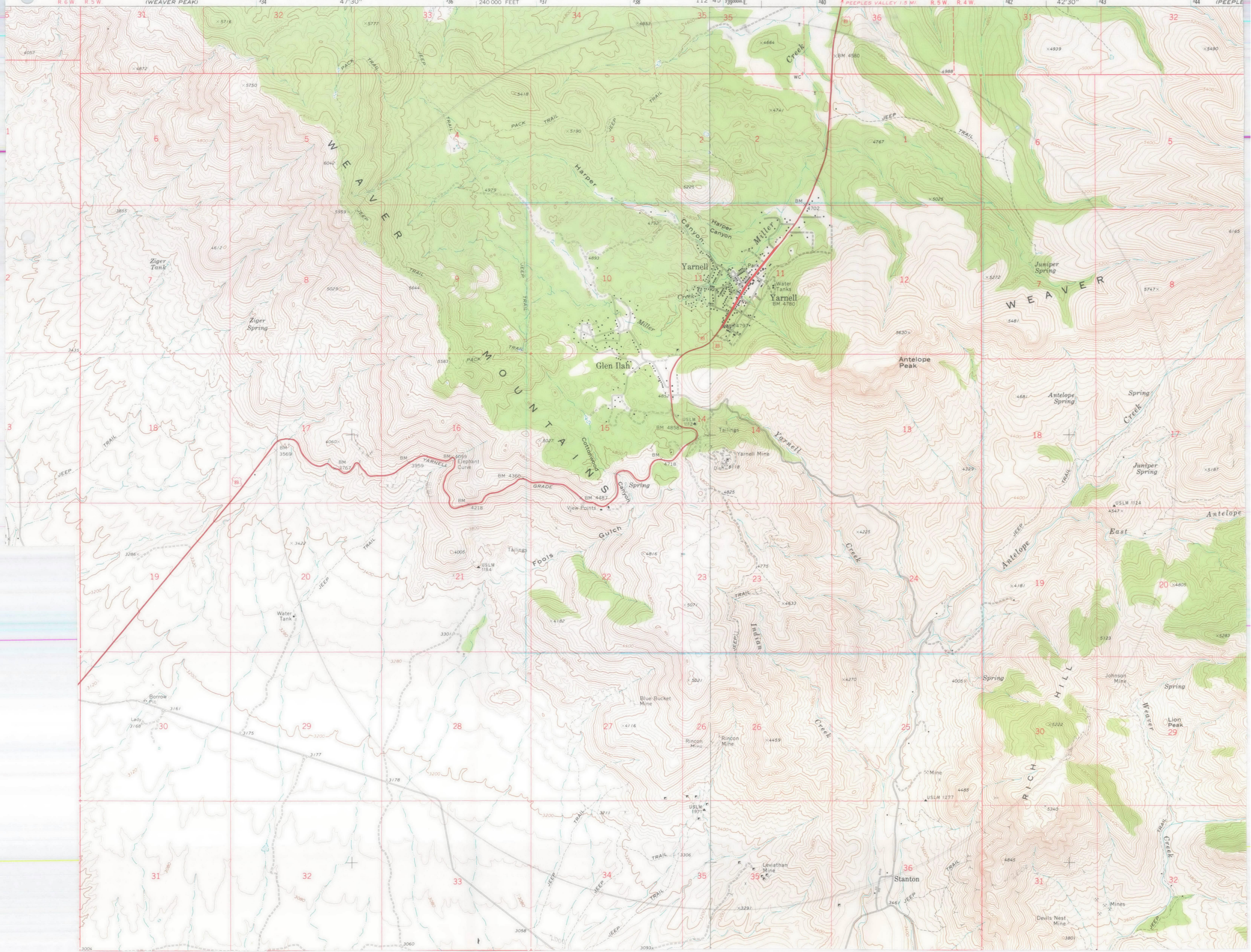
T11N, R5W — S½ Sec 34, Sec 35, S½ Sec 36.

T10N, R4W — Sec. 6, 7, 8, 17, 18, 19, 20, W½ 29, 30, N½ 31.

T10N, R5W — Sec. 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, E½ 29, N½ 33, 34, 35, 36.

CONGRESS QUADRANGLE
ARIZONA – YAVAPAI CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



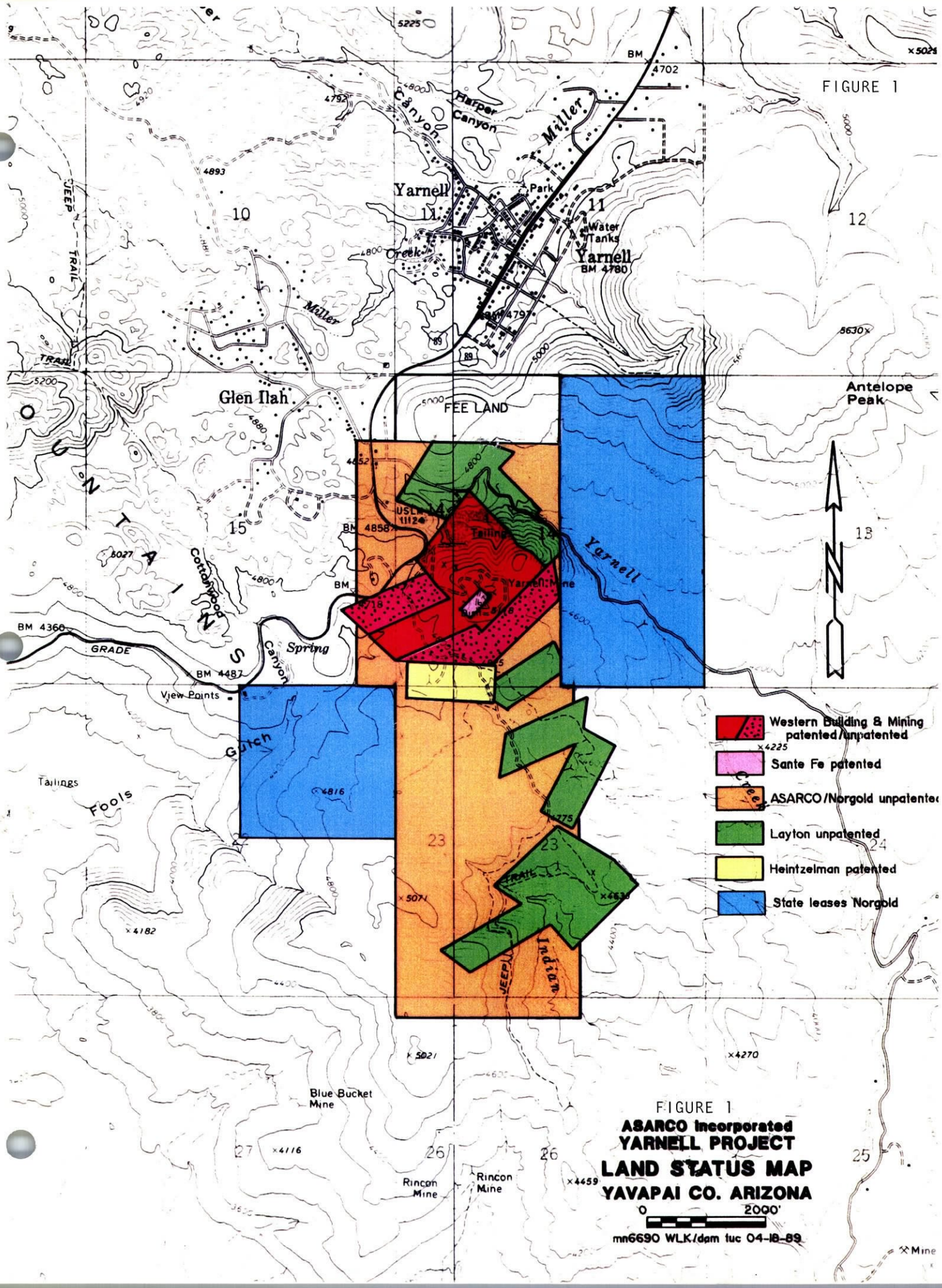


FIGURE 1

ASARCO Incorporated

YARNELL PROJECT

LAND STATUS MAP

YAVAPAI CO. ARIZONA

0 2000'

mn6690 WLK/dam tuc 04-18-89

ASARCO Southwestern Exploration Division

JDS

July 20, 1989

M.A. Miller

Sections, et al
Yarnell Project
Yavapai Co., AZ

In reviewing your sections, which you say are the best available, let me comment the following:

1. You should start rebuilding new sections at a scale of 1" = 100'. This will allow better control on position of fault as you have it and allow for better breakdown of value groups. What is your idea of assay breakdown based on your interpretation of L.J. Jansen's histograms?

2. The larger format will allow the posting of depths such as to the top of the mineral zone and the base of the zone and other interesting things.

3. A table should be made that lists the drill hole, the coordinates of the collar, the elevation of the collar and the elevation of the top of zone, Yarnell fault, base of zone, and final T.D. You should also note the top and bottom of any workings involved where the sample is non-existent or questionable muck. (This would generally also bracket your Yarnell fault.) You'll also need space for assay group elevations. If you do this using sea-level notations with a bracket showing hole depth ( ), if needed, then it will be simple for the computer service to pull the data and do wonderful things.

4. You should establish the outside right-of-way all along the perimeter of the highway and mineral zone. A call to the Highway Dept. says that each stretch of highway has a different center-line to right-of-way distance depending on various circumstances.

   At Yarnell you will note that the fence follows it in part and then at various points along it they have a piece of rail or other short post stating that this is the right-of-way line.

   As it is apparent that our drilling will need to be modified so as to not encroach upon this right-of-way and mining cannot break the line either (especially open-pit), thus this line will be important in any mineral reserve study.

   Bill Gay should survey those points and get them on the map which Western Aerial will soon have out. Did the right-of-way get flagged-paneled for the photo? If so, then we are well ahead.

   The right-of-way point should be on your sections so people can play games with pit slope variations, etc.

5. You need to construct sections along all your proposed drilling lines, such as B, L, M, N, R, & S, and you should lightly put on your expected fault and mineral zone.

6. You need to remap the location of the Yarnell fault in context of where it is on the ground. The exposure in the open-cut gives you good control but placing the fault in the pit as you view it at waist level is not the position on the map unless you put the pit contours in so as to judge the position-elevations.

   As you now try to show in your Section F-F, a splay in the fault based on the open-cut and results of drill hole YAR-20, how will you portray the structure and note it on your table of elevations-points?

7. In your Phase 3 drilling report, blue drill holes, reevaluate your cross-sections for the position of the Yarnell fault -45° pit slope contact and also evaluate based on grade-thickness of interest. You will need to make a table as in item 3 above with your estimates plus a column expressing the purpose of the hole. This will help you clarify your thoughts.

   For example: On Section C, do you really want NNN down dip from the thin 0.022 zone in YAR-13 or should you find out where the thick section of 0.014± in YAR-32 goes between YAR-32 and YAR-13? Of course, the Phase 2 drill hole #8 (H) (or you YY) results will help decide the thickness of low-grade and the mining people will have some input as to the practicality of mining any low-grade (0.014-0.022) in its own right, i.e., other than being part of a stripping load which has to be moved anyway, and the metallurgy will also influence the decision also. What do your long-sections suggest? Numerous other examples as above are now evident on your best cross-sections.

James D. Sell

James D. Sell

JDS:mek

cc: W.L. Kurtz

ASARCO

Southwestern Mining Department

July 21, 1989

TO: Mr. J. D. Sell

RE: Transfer of Drill Hole Data Base Listing

This will transfer one set of drill hole date base listings to you for holes:

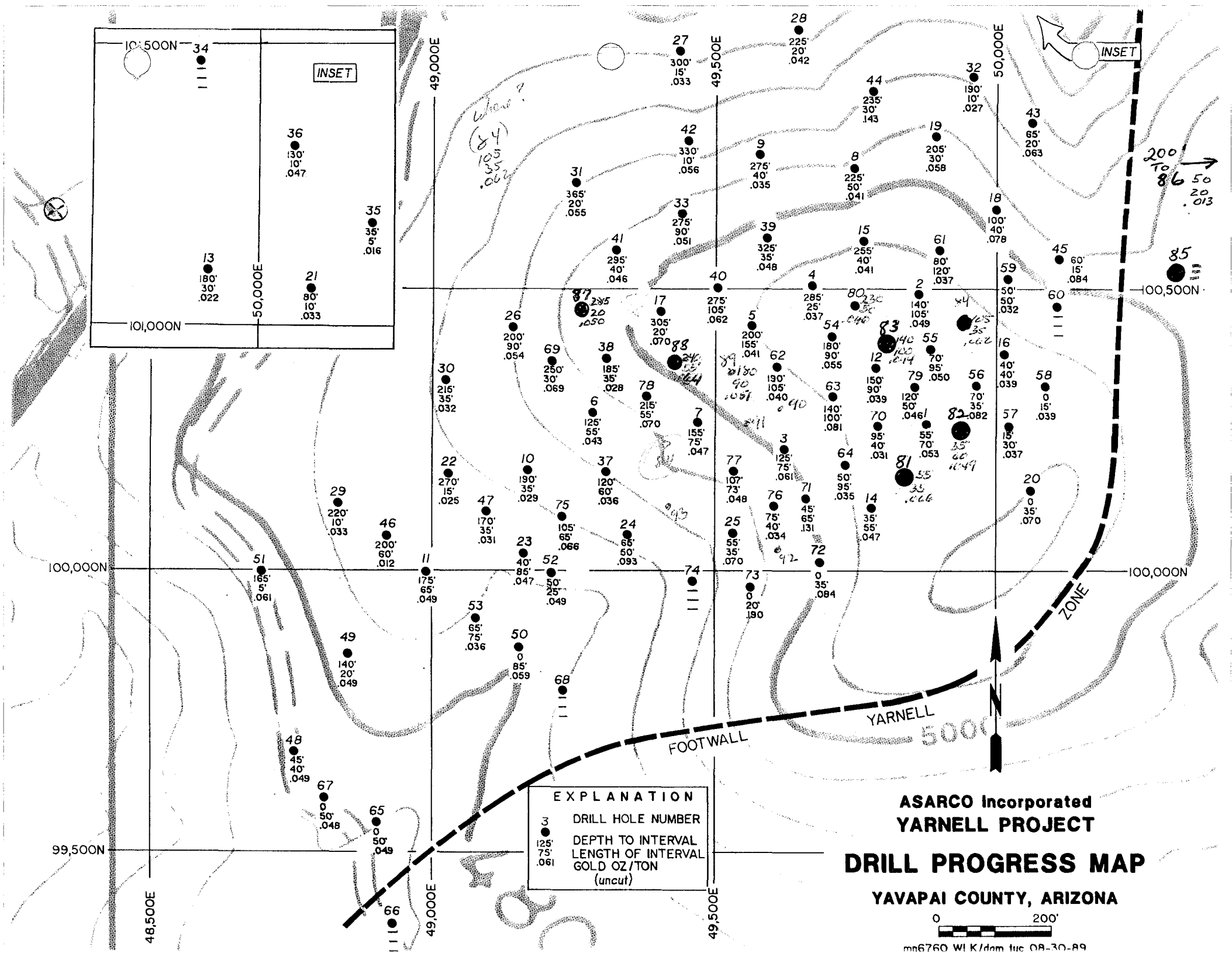
YM-1 to YM-36.

This set of drill hole logs lists the down hole coordinates calculated at the base of each assay interval,
drill hole name,
total depth, where entered,
azimuth,
vertical angle,
from and to depth,
blank field,
gold assay.

L. J. Jansen

LJJ/mck
encl.

ASARCO Incor.,
JUL 31 1989
SW Exploration


INSET
101,500N
101,000N
50,000E
49,000E
49,500E
48,500E
100,500N
100,000N
99,500N
FOOTWALL
YARNELL
ZONE
5000
EXPLANATION
3 DRILL HOLE NUMBER
125' DEPTH TO INTERVAL
75' LENGTH OF INTERVAL
.061 GOLD OZ/TON (uncut)
ASARCO Incorporated
YARNELL PROJECT
DRILL PROGRESS MAP
YAVAPAI COUNTY, ARIZONA
0 200'
mn6760 WLK/dam tuc 08-30-89

ASARCO

Southwestern Exploration Division

JDS

July 21, 1989

M.A. Miller

Right-of-Way
Abandoned Stretch
Yarnell Project
Yavapai County, AZ

A call to the Highway Department may be needed to learn the status of the short piece of Arizona highway road at the entrance to the Yarnell Project.

As you note on the map, the old road use to swing wider, and went in front of the house for sale on the east side of the new road going to the Yarnell area Cafe.

If the old right-of-way is still east of the old road, then quite a chunk is taken out.

James D. Sell

James D. Sell

JDS:mek

cc: W.L. Kurtz

JDS

HORIZONTAL SECTION

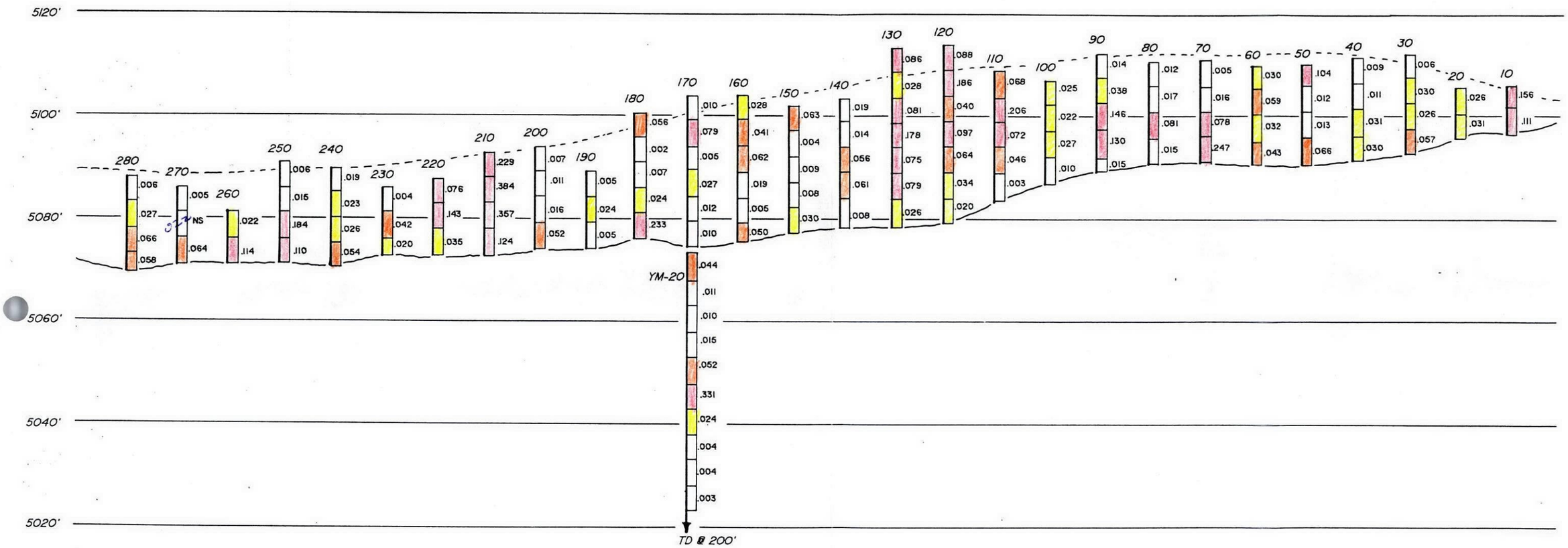
ASARCO Engineering and Computer Services

YARNELL PROJECT
OPEN-CUT SURVEY

SCALE In:Feet	CHECKED BY	PLOT DATE	FILE
1:20.00		14-JUL-89	YAR-OPEN-CUT

SOUTHEAST WALL ELEVATION
LOOKING SOUTHEAST

O.P.T. Au



less than 0.02 blank
0.02-0.0395
0.04-0.0795
0.07 +

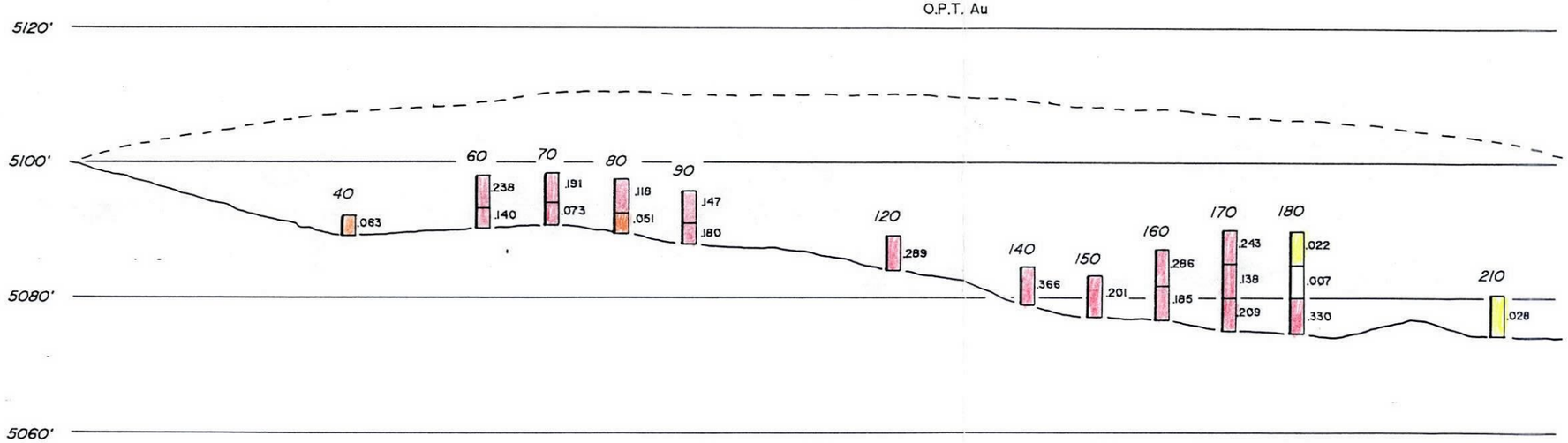
ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA
M.A.M. **7-89**

0 20'

mn6741 MAM/dam tuc 07-13-89

NORTHWEST WALL ELEVATION
LOOKING NORTHWEST

O.P.T. Au



ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA

M.A.M. **7-89**

0 20'

mn6742 MAM/dam tuc 07-13-89

DEB, DEC, RLB, FTG, WLK, SAA,
TES, WDG, MAM, JDS, FILE

?

DEB

copied file

Distributed 7/24/89
mek

√ DS

ASARCO

Southwestern Exploration Division

July 24, 1989

M.A. Miller/W.D. Gay

Metallurgical Sample
Yarnell Project
Yavapai County, AZ

You have both received a copy of the July 18 memo from D.E. Crowell on the subject matter.

Mr. Skidmore and Mr. Crowell want to get together with you on Monday, July 24, to discuss where the sample can be secured and the moving of the sample to Sparks, NV.

In talking with Mr. Crowell, one of the options on moving the sample is to engage a dump truck which can be lined and the entire sample placed in the bed, covered, and taken directly to Sparks.

Crowell will call one such trucking line, but perhaps Mark also knows, or can find out, a local Yarnell, Congress or Wickenburg truck which can cross state lines.

Scartaccini thought that Bill Gay was knowledgeable to oversee the drilling, blasting, and loading, as Mr. Skidmore is tied up for several more weeks.

At least one barrel will need to be secured to hold the "gouge" sample so as not to mix the two types of samples.

Other than support work -- ideas on people, places, and things -- Mark should get on with the mapping and sampling of the claim block and allow Bill and others to secure the sample.

James D. Sell, mek

James D. Sell

JDS:mek

cc: W.L.Kurtz

JDS

ASARCO

Exploration Department
Southwestern United States Division

James D. Sell
Manager

CERTIFIED MAIL
RETURN RECEIPT

July 24, 1989

Mr. A.J. Roman, President
Western Building & Mining Co., Inc.
P.O. Box 4006
Reading, PA 19606

Western Building
Monthly Payment
Yarnell Project
Yavapai Co., AZ

Dear Mr. Roman:

Enclosed is Asarco's check of $1,000 U.S. for the monthly payment of August 1, 1989, due Western Building as per Article 4 of the Norgold Resources, Inc. - Western Building and Mining Co., Inc. Agreement dated December 30, 1988.

Sincerely,

James D. Sell

JDS:mek

James D. Sell

cc: W.L. Kurtz
C.L. Snow
C. Moat - Norgold

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703-0747
1150 North 7th Avenue (602) 792-3010

JDS

ASARCO

Southwestern Exploration Division

July 25, 1989

F.T. Graybeal
New York Office

Preliminary Thoughts
Continuity-
Grade-Thickness
Yarnell Project
Yavapai County, AZ

You had asked me to review the Yarnell drill results and comment on how the mineralization holds together based on the drilling to date.

I have used Mr. L.J. Jansen's computer section (a colored set had previously been sent to New York). I have replotted the various grade intervals and have only completed the "dip" sections, but I believe you can also visualize the "strike" sections.

A number of items are apparent.

1. On the present 100 to 200 foot centers, it is obvious that the grade can radically change from one drill hole to another. This includes the narrow (20'-60') Yarnell fault zone itself, as well as the lower grade halo lying mainly above the main zone.

2. The present drilling of nine holes (37-45) (A-I holes) were placed to help resolve some of this variation problem as seen in the section.

3. Irrespective, it appears quite obvious that a much denser net of drill holes will be necessary for adequate control for future calculations. A fifty to seventy foot grid might be necessary, with up to fifty holes needed to pin down the options within the block.

4. Figure 1 is my preliminary thought on the denser drilling. The zone is some 1200 feet long (NE-SW) extending from holes 18-19 (LJJ Section +1570) on the east to holes 11-29 (LJJ Section +400) on the southwest. The drilling should continue some 400 feet southwesterly to determine the near-surface high grade portion as exemplified by hole 11.

   Downdip the grid would be from the surface trace of the mineralization downdip to around the 4700 foot elevation. The lower line would be in the vicinity of holes 19, 8, 17, 6, 10, 11 (from east to west) and wedging out along the trace of the fault.

Some extension of this will depend upon mine planning and metallurgy results, such as being able to go after the area of hole 26 (LJJ Section +860).

5. The deposit undoubtedly has a nugget or high-value zone as either a quartz vein or narrow sheeted zones which when present will influence how to weight a five foot rotary sample.

For example, using LJJ Section +670, drill hole 30 with the assay from 0-5' being 0.628 opt gold. If we assume the high grade inclined vein of say 1.5 ounces was cut over a two foot section, then the remainder or three feet of the run would only average 0.05 opt gold.

Continuing down hole 30, from 215-240 is an interesting intercept which weighted as is, returns 35 feet of 0.032 opt gold and might be leach ore should other factors be favorable. But, if we assume that the one high value of 0.093 represents a high grade vein of 1 foot of 0.4 opt, then the remainder of the sample would be 4 feet of 0.016 opt. Then the intervals 0.030, 0.009, 0.016, "0.016," 0.011, 0.027, 0.041 makes for second thoughts on going after such leach.

This section JJL +670 also shows the possible fault problems. One can draw a fault between holes 10 & 30 to offset the two 0.030 opt zones. Or, one can project the hole 30 zone updip to intercept hole 10 in the area of the two higher grade values at the 135-150 foot depth. OK, then by projecting the top and the bottom of the mineral zones in hole 29 downdip to hole 10, we suggest that hole 30 failed to penetrate to the same bottom interval and we do not know if any better zone is present below hole 30.

6. The problem of faulting is evident in the open-cut and can now be readily seen since it has been cleaned and resampled. You have received a copy of the memo to Skidmore/Crowell from Sell/Miller on the Open-Cut Sampling (July 14, 1989).

I resubmit the two wall sections as Figure 2 and 3. Figure 2 is the northwest wall of the cut and clearly exhibits the fault offset of the hanging wall gouge-breccia of some 10 feet in each case. The variation in grade is also suggested in this section. No sample was available at Station Zero, but let us assume it would be in the 0.05 range. Then a hole at Zero would show 0.05 at the fault and for 10-15 feet; a hole at Station 100 would give a very nice 0.15-0.28 value for the interval, and the third hole at Station 200 would have very low grade 0.02 for the first ten feet, before hitting the high-grade of 0.2-0.3 values.

Viewing across Stations 60-70-80-90 shows the individual 5 foot cut which add grey hairs to control engineers.

7. Figure 3, Southeast wall elevations, when colored in the individual 5 foot cuts, again shows the rapid lateral variation. I realize that the sampled zone is within the bigger zone and is not directly comparable in a horizontal cut, but the variation problem is evident.

   It mainly points up the problem of assignment of assay blocks because you can readily see that if your holes, on 100 centers, were at Station 10 with value of 0.13, then Station 110 of 0.098 (ignoring bottom sample), then Station 210 of 0.27, giving a nice set of values for calculations.

   But what if the holes were just 30 feet away at Station 40 (0.018), Station 140 (0.038), and Station 240 (0.031) -- what to do with the low grade leach! (Not counting the ounces of gold to be recovered!)

8. Although I indicated some of the problems, it can also be said that overall there are many ounces of gold in a mineable configuration which need to be evaluate on a continued basis.

James D. Sell, mek

James D.Sell

JDS:mek
Attachment

cc: W.L. Kurtz

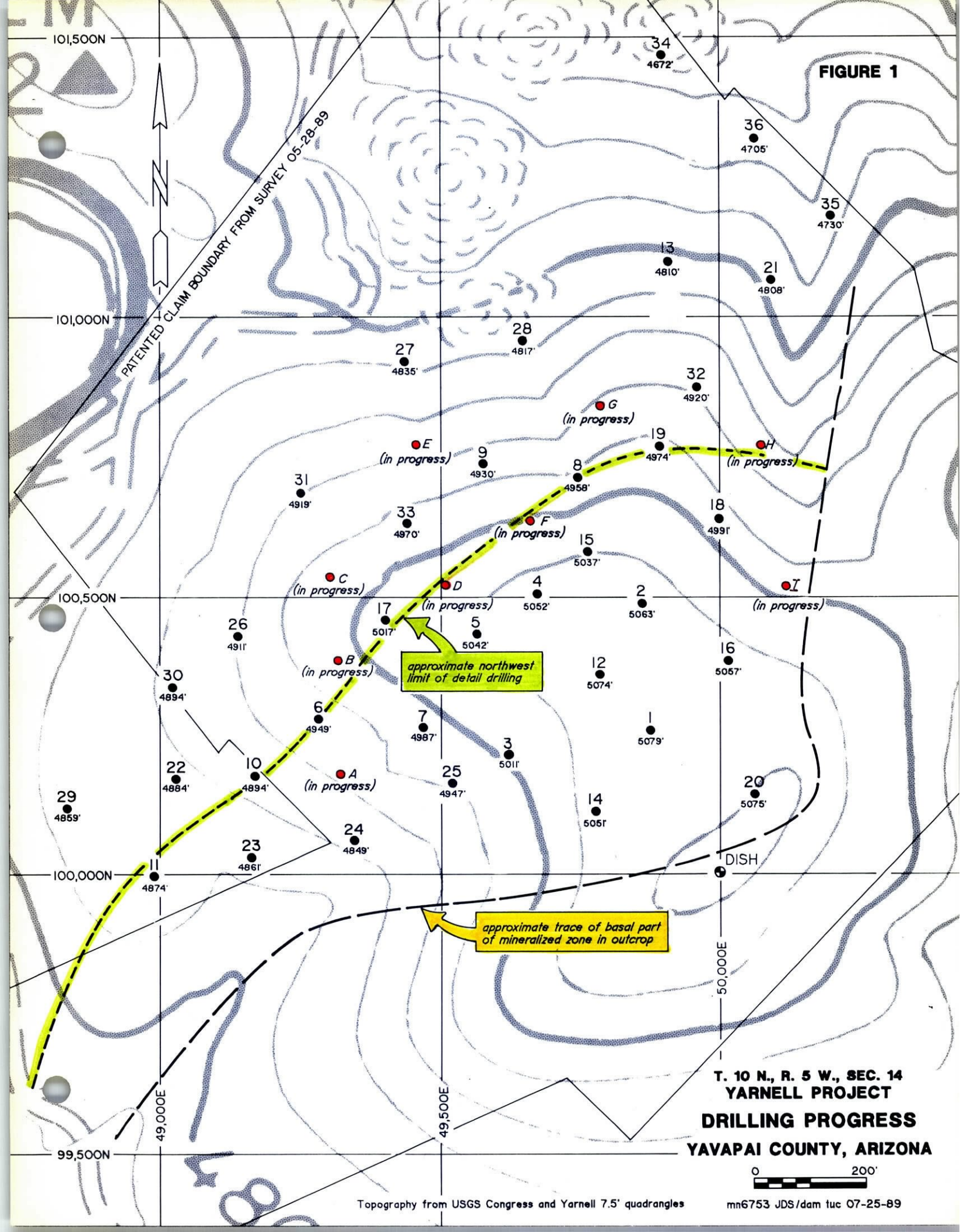
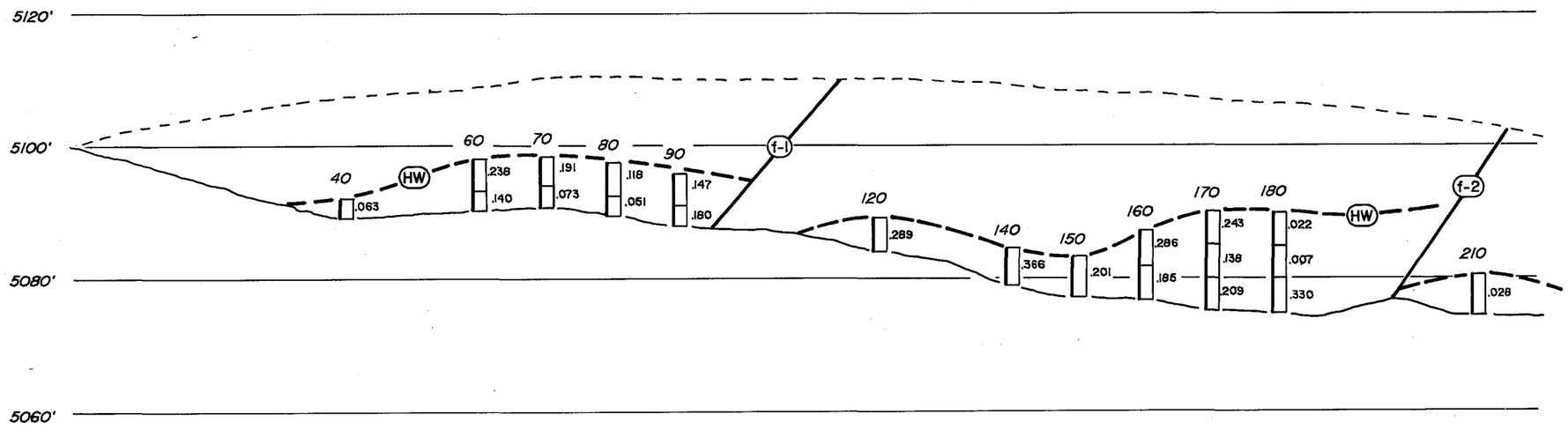


FIGURE 1
PATENTED CLAIM BOUNDARY FROM SURVEY 05-28-89
N
101,500N
101,000N
100,500N
100,000N
99,500N
49,000E
49,500E
50,000E
34
4672'
36
4705'
35
4730'
13
4810'
21
4808'
28
4817'
27
4835'
32
4920'
G
(in progress)
E
(in progress)
9
4930'
19
4974'
H
(in progress)
8
4958'
31
4919'
33
4970'
F
(in progress)
18
4991'
15
5037'
C
(in progress)
D
(in progress)
4
5052'
2
5063'
I
(in progress)
17
5017'
5
5042'
26
4911'
B
(in progress)
approximate northwest limit of detail drilling
12
5074'
16
5057'
30
4894'
6
4949'
7
4987'
1
5079'
3
5011'
22
4884'
10
4894'
A
(in progress)
25
4947'
20
5075'
29
4859'
14
5051'
24
4849'
23
4861'
DISH
11
4874'
approximate trace of basal part of mineralized zone in outcrop
T. 10 N., R. 5 W., SEC. 14
YARNELL PROJECT
DRILLING PROGRESS
YAVAPAI COUNTY, ARIZONA
0
200'
Topography from USGS Congress and Yarnell 7.5' quadrangles
mn6753 JDS/dam tuc 07-25-89

FIGURE 2

NORTHWEST WALL ELEVATION
LOOKING NORTHWEST

O.P.T. Au



ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA

M.A.M. **7-89**

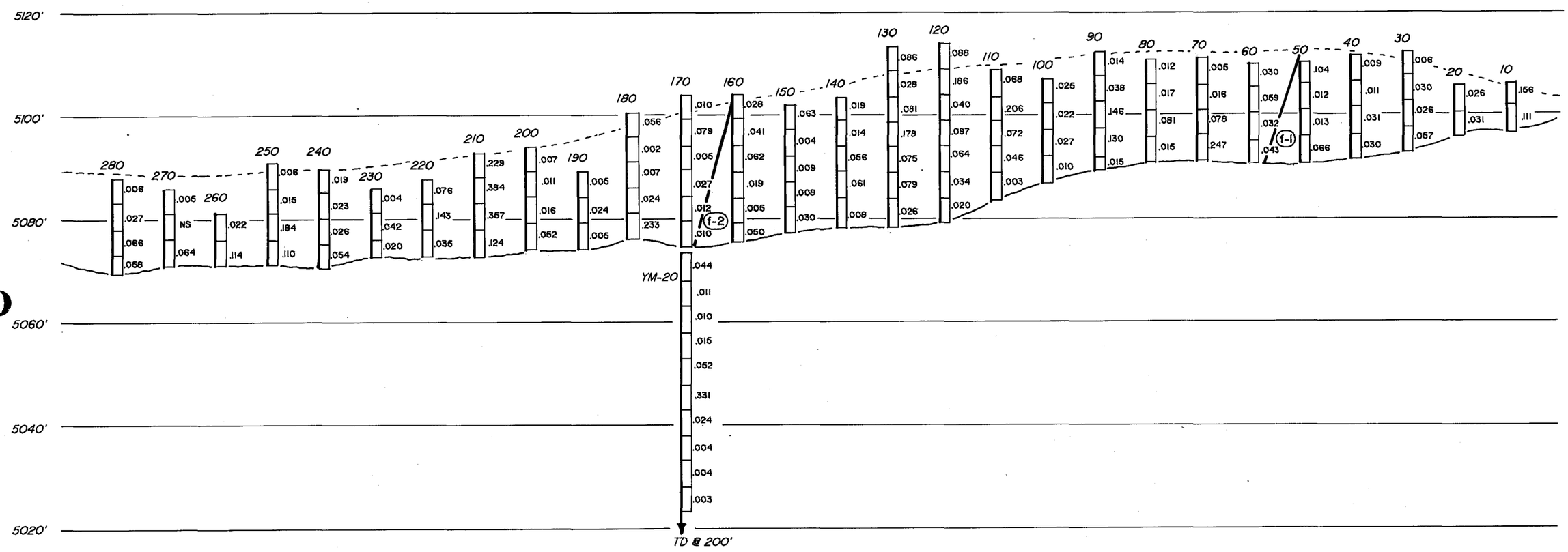
0 20'

mn6742 MAM/dam tuc 07-13-89
revised: mn6755 JDS/dam tuc 07-25-89

FIGURE 3

SOUTHEAST WALL ELEVATION
LOOKING SOUTHEAST

O.P.T. Au



ASARCO Incorporated
YARNELL PROJECT
OPEN CUT
ROCK CHIP SAMPLES
YAVAPAI CO., ARIZONA
M.A.M. **7-89**

0 20'

mn6741 MAM/dam tuc 07-13-89
revised: mn6754 JDS/dam tuc 07-25-89

JDS

WESTERN AIR MAPS, INC.

P. O. BOX 14988
LENEXA, KANSAS 66215

IMPORTANT
PLEASE MAIL REMITTANCE TO:
WESTERN AIR MAPS, INC.
P. O. Box 301
Olathe, Kansas 66061

INVOICE NO. № 11078

INVOICE DATE July 25, 1989

SHIPPED TO

SOLD TO
ASARCO, Inc.
P.O. Box 5747
Tucson, AZ 58703

Attn: Jim Sell

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD. OR COLL.
6570			Net 15 days		

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	Partial billing for services rendered to date for aerial photography and photogrammetric services		
	Aerial Photography and Contact Prints	$1,150.00	
	Targets and Control Surveys	6,000.00	
	Amount Due This Invoice		$7,150.00
	A charge of 1½% per month will be made on all accounts which are overdue. This is an annual percentage rate of 18%.		

APPROVED FOR PAYMENT
By: _____
(Signature)

Signed 8/3/89

JDS

ASARCO

Southwestern Exploration Division

July 26, 1989

J.D. Sell

Open Cut Bulk Sampling
Yarnell Project

On July 24, 1989, M. Miller, W.D. Gay, D.F. Skidmore, and D. Crowell met to discuss the sampling and logistics of sampling at Yarnell Open Cut. Four locations will be blasted to provide enough material for a bulk sample. In addition one drum of gouge in the Yarnell Fault Zone (YFZ) will be taken. We also plan to take a low grade sample ≈.025 opt Au sample from the main adit next to the house. A description of sample locations is below and a location map is attached.

N.W. Wall

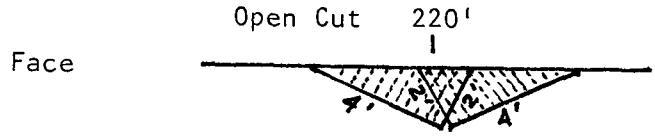
90' 60 - Gouge zone in YFZ will be individually sampled and put in a drum.

160 & 210 - Both sections will be slabbed and blended to include YFZ in bulk sample. Sample will be blended in a 6:1 ratio of low grade (.028) to high grade (.286, .185) to make a final sample of ~1T of material (14 ft.^{3}) at ±.05 opt Au.

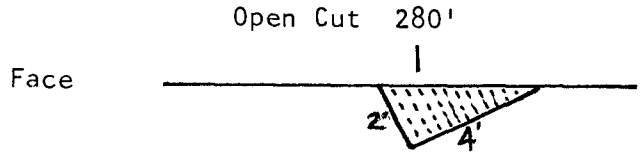
S.E. Wall

110-120 - Slab in .064, .034, on 120 and .046 on 110. Discard low .02 on 120 and .003 on 110. This will take 1-2 slabbing runs and will produce ~5T (60 ft.^{3}) of material at .048 opt Au.

220 - Two overlapping slabbing runs 5' high centered on 220 in .036 opt Au. This will produce ~3T (40 ft.^{3}).



280 - One slabbing run 10' high in .068, .058 opt Au , centered on 280. This will produce ≈3T (40 ft.^{3} at .062 opt Au



Don Crowell : Aug 15, 1989
Low grade from open cut 0.030 0.088 0.032 ave 0.033 opt
High grade from open cut 0.089 0.103 0.080 ave 0.091

Total extraction from the sites on the NW & SE side of the cut (excluding the gouge sample) is ≈12T (154 ft.^{3}) at .048 opt Au. DEC: 0.039

A low grade (.025) sample will be taken in the main tunnel next to the house. Approximately 3T (40 ft.^{3}) will be blasted between 220-240 where rock chip assays were 220-230; .03, 230-240; .02 opt Au. This will provide us with a bulk low grade sample at ±.025 opt Au. DEC: 0.011 0.009 0.009 avg 0.008

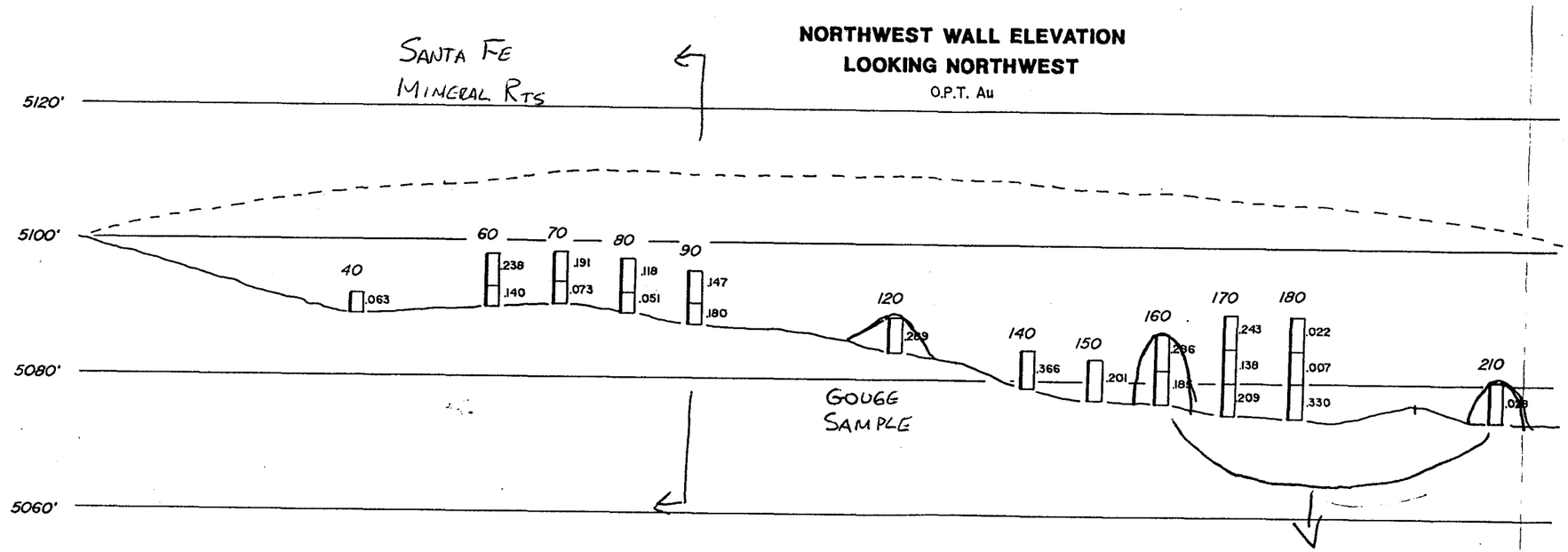
The drilling, blasting, loading, etc. will be done by local contract labor. We are still checking into trucking firms to haul the sample to Reno. Anticipated cost to secure the sample and haul it is $5,000.

Mark A. Miller, mek

MAM:mek

Mark A. Miller

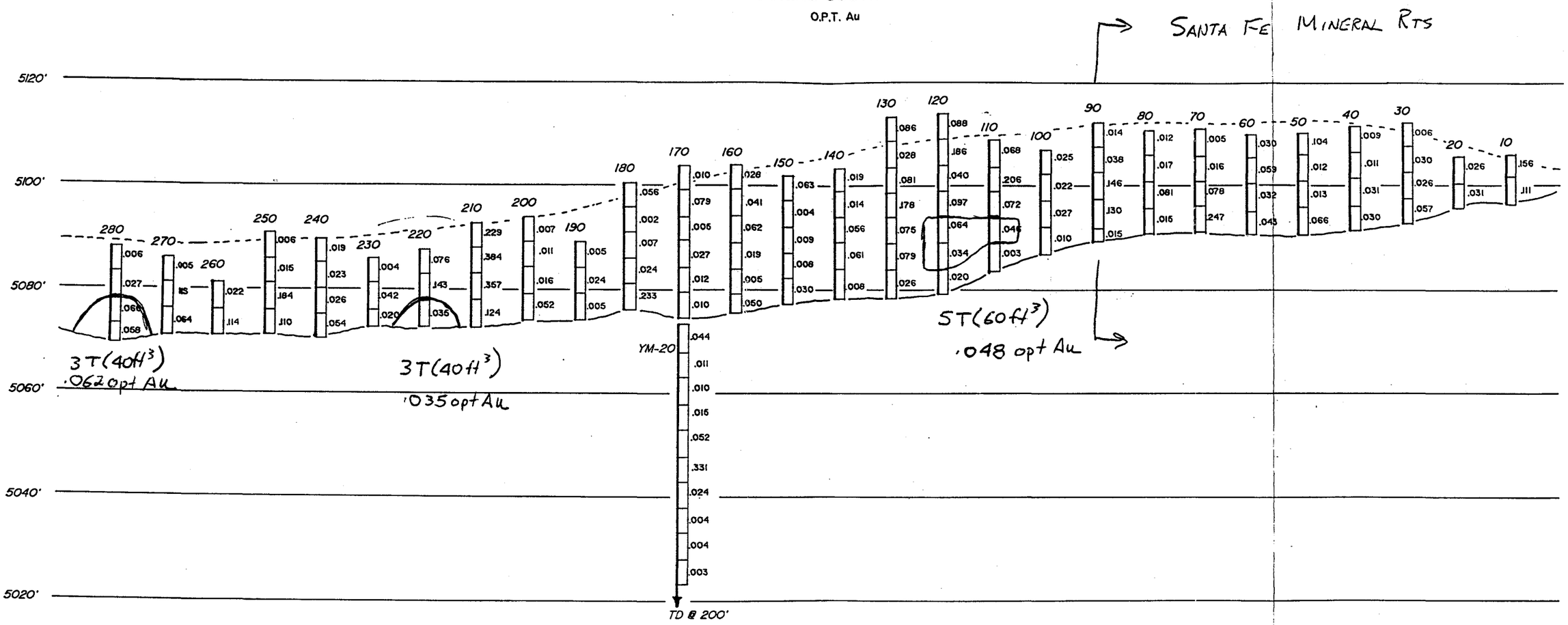
cc: W.L. Kurtz
W.D. Gay
D.E. Crowell
D.F. Skidmore



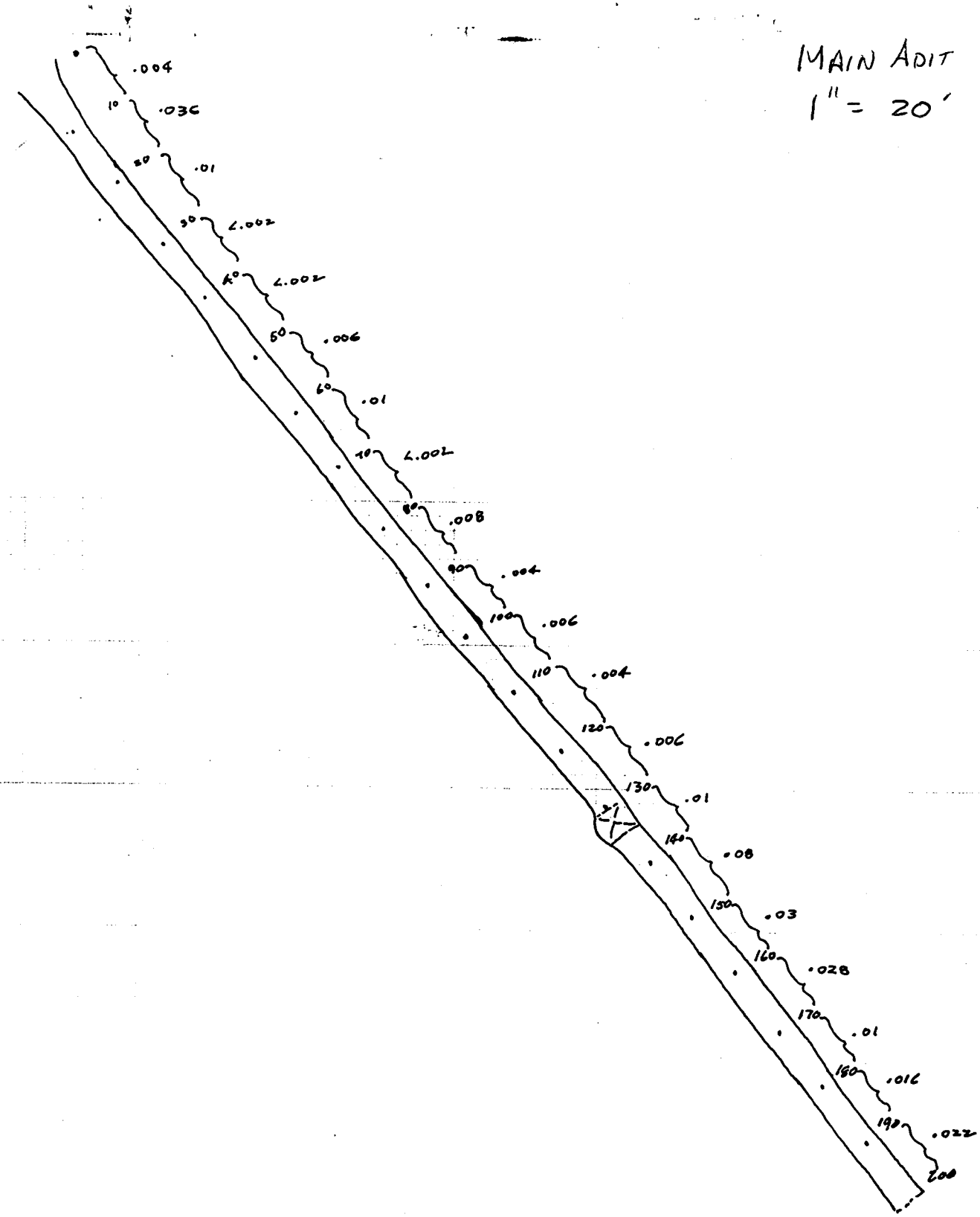
BLEND 6:1 LOW GRADE : H.G
FOR (14 ft³) ~1T @ ±.050 opt Au

SOUTHEAST WALL ELEVATION
LOOKING SOUTHEAST

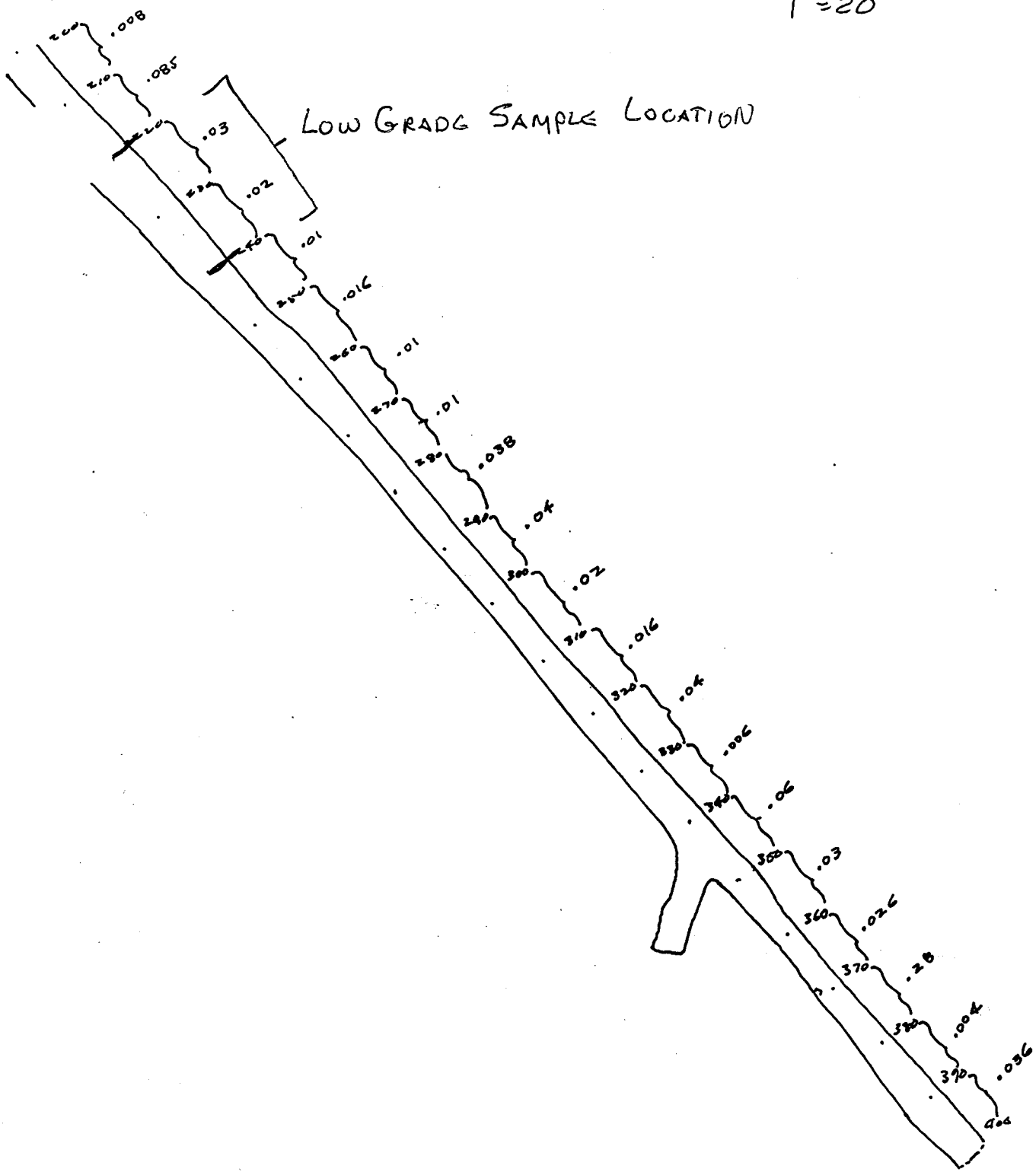
O.P.T. Au



MAIN ADIT
1" = 20'



MAIN ADIT
1" = 20'



JDS

ASARCO

Exploration Department
Western USA

W. L. Kurtz
Manager

FEDERAL EXPRESS

July 26, 1989

Mr. C. Moat, President
NORGOLD RESOURCES INC.
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

Yarnell Project

Dear Mr. Moat:

Mr. Brown has requested that I reply to your letter of July 17, 1989. Numbers 1-8 refer to your letter:

1. Alvarado Property: By telephone I requested that you contact Scarth Oil to obtain the Alvarado data. You report you have done so, have received a data package and are currently having Mike Philpot review data to establish a level of interest. Asarco does not want to discuss business terms with Scarth Oil until Asarco has had a chance to review Philpot's appraisal and the Scarth Oil data.

2. Enclosed is a check in the amount of $15,000 to reimburse Norgold for the front money Norgold paid Layton and Heintzelman. Please forward to this office a copy of the Layton agreement (the one we have is a FAX and not totally readable).

3. This item was not discussed in Phoenix and Mr. Brown is taking under consideration your request to call the project "Norgold Project/Mine."

4. As we do not produce weekly reports we will not send you one, but will FAX you on a weekly basis assay results and approximate hole locations. Drill coordinates will be sent upon completion of surveying.

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

5. I or Mr. Sell will send Norgold a monthly activity report outlining work completed during the month and proposed work for upcoming month.

6. Agreed. Asarco will not send interpretive data -- probably the completion of the feasibility study will be the first time Asarco's appraisal of the Yarnell data is sent.

7. News releases must be approved by Mr. Brown. Without Mr. Brown's approval no release should be made.

8. Upon my return from Phoenix I instructed Mr. Sell to send you an accounting of U.S. dollars spent in physical project work. I am providing you with a letter stating we have spent more than $100,000. Mr. Sell will provide a more detailed accounting.

Sincerely,

W. L. Kurtz

WLK:mek
Enc. Check $15,000
Letter

cc: R.L. Brown
J.D. Sell

ASARCO

Exploration Department
Western USA

W. L. Kurtz
Manager

July 26, 1989

Mr. C. Moat, President
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

Yarnell Project

Dear Mr. Moat:

Please be advised that Asarco has spent more than $100,000 in mapping, sampling, drilling and other physical work on the Yarnell Project. Mr. Sell will provide a more detailed accounting if you need it.

Sincerely,

William L. Kurtz

WLK:mek

cc: R.L. Brown
J.D. Sell

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

JDS

7/28/89

FROM: W. L. KURTZ

TO: JD SELL
Mr. MILLER

MR. MOAT has informed me that Mdm Philpot and Mr. Adrian(?) will be in the Yarnell area around August 3rd. I agreed they could visit the property.

<u>As</u> always no new information is to be given to them. All data (as Kurtz + Sell see fit) is being Faxed on a weekly basis to them in Vancouver.

7/28 later in day
YARNELL
BULK SAMPLE

FROM: W. L. KURTZ

TO: JD Scott

Round 2. Don Cowell has twisted my arm and had me agree to go ahead and take underground sample above Miller recommended tho' he (Cowell) acknowledges that grade may not be what driller says it is.

After sample is taken I will have Miller have the workers channel sample so we know what it was they shipped

The main reason is that only cost is taking the sample because trucking cost remains the same

7/28/89

FROM: W. L. KURTZ

TO: J. D. Sell

Yarnell
Bulk Sample

Re: Miller of July 28th

I informed Miller by phone NOT to take any bulk sample from the "adit next to the house" and Not to ~~tak~~ take any low grade bulk sample at this time.

JLS

JDSell
M Kavanagh

Please note my letter of July 26, 1989 to Mr. Moat of Morgold states that we will FAX hem drill data (assays, hole location — approximate until have coordinates surveyed) on a weekly basis and that Sell or myself will provide a monthly progress review and plans for upcoming month (no interpretative data to be included).

W.L.K

ASARCO Incorporated
JUL 26 1989
SW Exploration

FAX

FROM: W. L. KURTZ

TO: C. MOAT
NORGOLD

FRIDAY JULY 28, 1989

We are "Faxing" you an index map showing approximate location of new drill holes YM-37 thru 42 and assay results.

W. L. Kurtz

cc. Note only to JRS

JDS

ASARCO

Exploration Department
Western USA

W. L. Kurtz
Manager

July 31, 1989

Mr. Christopher Moat, President
NORGOLD RESOURCES INC.
2380 Harbour Centre
P.O. Box 12122
555 W. Hastings Street
Vancouver, B.C. V6B-4N6
Canada

YARNELL PROJECT
Monthly Progress Report
July 1989

Dear Mr. Moat:

As agreed, Asarco will provide Norgold with a monthly progress report, and as this is the first such report it will review the progress from January thru July 1989.

1. Surface geologic mapping and rock chip sample was completed over the mineral deposit and a few of the underground workings were mapped and sampled.

2. Forty-two reverse circulation drill holes have been completed and assays have been received and have been forwarded to Norgold.

3. Drill hole coordinates and elevations have been surveyed for thirty-six holes and information forwarded to Norgold.

4. An aerial photography survey has been completed for the purpose of making a topographic map. Map should be received from contractor within two weeks at which time a copy will be forwarded to Norgold.

6. The open cut was cleaned out and sampled to determine where a bulk metallurgical sample might be taken.

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

Work planned for August is to complete the "Phase II" 10,000 foot drill program; collect and ship bulk MET sample to a Reno, Nevada, lab for test work; a new drill program is being formulated for submittal to Asarco's New York Office and drilling might start during August.

Sincerely,

W. L. Kurtz

WLK:mek

cc: R.L. Brown
J.D. Sell

ASARCO PD 1
REVISED 1/1/58

ACKNOWLEDGMENT

PURCHASE ORDER

ASARCO INCORPORATED

~~American Smelting And Refining Co.~~

TUCSON OFFICE
P. O. BOX 5747

1150 NORTH 7TH AVENUE
TUCSON, ARIZONA 85703

DATE 7/31/89 JDS

ORDER NO. T-206-9

PLANT JOB NO.

APPROPRIATION NO.

REQUISITION NO.

To: Y.O.U.
527 South Church Street
Hazleton, PA 18201
(Phone: 717-454-4762)

FINAL DESTINATION — PLEASE NOTE CONSIGNMENT BELOW

DATE REQUIRED AT DESTINATION:

CONSIGNMENT — SELLER WILL SHIP TO

SHIPPING INTERVAL PROMISED

SELLER WILL SHIP BEFORE:

POINT OF SHIPMENT

TERMS:

— RENDER BILLS AS PER ATTACHED SHIPPING INSTRUCTIONS —

F.O.B. POINT

SHIP VIA

QUANTITY	UNIT	SPECIFICATIONS	ITEM NO.	UNIT PRICE
		Y.O.U., hereinafter referred to as the CONTRACTOR, will make Drill Pads and do any road work at Asarco's Yarnell Project in Arizona as directed by Asarco's representative(s) at the job site. Payment for work performed will be as billed once approved by Asarco's representative at the job site. CONTRACTOR will provide all necessary materials and equipment to complete the required work (TEREX/955 Loader). It is understood by both parties to this order that CONTRACTOR will perform all work in a diligent and workman-like manner and in accordance with recognized standard drilling practices. Asarco will not be charged for delays caused by failure of CONTRACTOR's equipment or personnel, and repairs not to exceed $2000. CONTRACTOR and his personnel will make every effort to minimize disturbance of the natural environment, and crews will establish and maintain sanitation systems which are acceptable to Asarco and which comply with standards set by any government agency whether federal, state, county, or municipal which has jurisdiction over the site area. CONTRACTOR's particular attention is called to Clause Eleven (11) on the reverse of this order. Before entering upon Asarco's property to perform this work, CONTRACTOR will submit acceptable evidence of compliance with the Workmen's Compensation Laws of the State of Arizona, and, on Asarco's standard insurance form or your own similar form, acceptable evidence of other required insurance.		ACCEPTED FOR: Y.O.U. By: Greg Yannizzo, VP

IMPORTANT

Attached Acknowledgment ~~Card~~ must be completed and returned promptly.

Orig. & Acknowledgment Copy: Y.O.U.

CC: J.D. Sell, W.D. Gay, Acctg Dept.

PLEASE ENTER OUR ORDER FOR THE ITEMS SPECIFIED ABOVE, SUBJECT TO ALL INSTRUCTIONS AND PROVISIONS ON REVERSE SIDE.

J.D. Sell, Manager, SWED

INSTRUCTIONS

INVOICE: Priced invoices in the requisite number giving the correct purchase order and requisition numbers, together with required Bills of Lading, must be forwarded on day of each shipment AS PER SPECIAL SHIPPING INSTRUCTIONS ACCOMPANYING THIS ORDER, otherwise delay in payment of account may result.

TERMS: As previously arranged or specified on this order. Care must be exercised to show cash discount, if allowed, on face of invoice.

PROVISIONS

1. **ACCEPTANCE:** Acceptance of this order constitutes acceptance of all terms herein stated. All representations and warranties by the seller relating to the subject-matter of this order or its performance shall be binding on the seller as if fully set forth herein, and shall survive inspection and acceptance of the goods ordered. No acknowledgment or acceptance of this order or any other communication by the seller shall vary or add any terms or conditions to those contained herein and any such attempted modification or addition which is not accepted in writing by the buyer, shall be void and may be disregarded without further notice or disclaimer.

2. **PRICES:** This order must not be filled at higher prices than last quoted without authority of the buyer.

3. **SHIPMENTS:** All materials must be forwarded by the route designated and seller will be held strictly accountable for any deviation therefrom.

When the material covered by this order shall aggregate a carload shipment or more, the seller must forward in carload lots, unless duly authorized in writing by the buyer to ship in less than carloads. If this order aggregates less than a minimum carload, seller must forward the entire quantity at one time unless otherwise authorized in writing by the buyer.

When blocking or dunnage, etc., not constituting a part of the car are used to protect and make shipments secure in transit, seller must show on Bills of Lading, separately, the weights of such materials, provided the lading shall aggregate a minimum carload or more, and will be held responsible for failure to comply with this rule.

Shipments will not be considered as completed until Bill of Lading, or express or mail receipt is received.

4. **PACKING AND CARTAGE CHARGES:** No charge will be allowed for packing, boxing or cartage, unless agreed upon at the time of purchase; damage to any material not properly packed to insure adequate protection in transit will be charged to the seller. All packing must conform with tariff or classification requirements so as to secure lowest possible freight rates. It is understood the buyer will receive the benefit of any decrease in freight charges between time of quotation and date of shipment, where freight enters into the price originally quoted.

5. **QUALITY AND INSPECTION:** All material furnished must be as specified and will be subject to inspection and approval of buyer after delivery. The right is reserved to reject and return at the risk and expense of the seller such portion of any shipment which may be defective or fail to comply with the specifications without invalidating the remainder of the order. If rejected it may be held for disposition at the expense and risk of the seller.

6. **QUANTITY:** The specific quantity ordered must not be changed without buyer's permission in writing.

7. **NON-PERFORMANCE:** Buyer reserves the right to cancel this order or any portion of same if delivery is not made when and as specified, time being of the essence of this order, and charge seller for any loss entailed.

8. **PATENTS:** The seller hereby guarantees the buyer against all losses of profits, damages, or both, resulting from any patent infringement by reason of purchasing or using goods covered by this order, or by reason of any loss suffered in not being able, without liability, to use such goods. This guarantee also includes the reimbursement to the buyer of all litigation costs which it may suffer as the result of any suit respecting the purchase or use of such goods, in addition to the recoveries which may be secured against it of profits and/or damages.

GENERAL:

9. The material on this order must be furnished only by the person or firm to whom the order is addressed unless otherwise authorized by the buyer.

10. No drafts for purchases made will be honored unless by agreement.

11. If it becomes necessary for the seller or any agent, contractor, or employee thereof to enter upon the property of the buyer in order to construct, inspect or deliver hereunder, the seller hereby agrees to protect the buyer's property and all persons thereon from injury, damage or loss, and the seller shall save harmless and indemnify the buyer from and against any expense, loss or damage on account of any claim, demand or suit made by any person whomsoever, including any employee of the buyer, which is in any way caused by or connected with or grows out of the performance hereunder by the seller or any agent, contractor or employee thereof; provided however that the seller shall not be required to indemnify the buyer against any loss caused solely by the negligence or willful fault of the buyer or its employees. If the seller performs any work hereunder knowing it to be contrary to any local law, ordinance, rule and regulation, the seller shall bear all costs arising therefrom. Seller to carry Liability Insurance and to carry Workmen's Compensation Insurance as provided by the laws of the State in which the work is performed and further, is to obtain a certificate for same, which is to be furnished for the file of the buyer. If for any reason the seller's or any subcontractor's employees or agents may acquire a status imposing liability on the buyer for employer's contributions or taxes under the Federal Social Security Act or under any State Unemployment Insurance, Old Age Benefit, or similar Acts, the seller shall be exclusively liable for, and shall indemnify the buyer against, the same and does agree to comply with all laws and regulations so as to relieve the buyer from any and all liability therefor or the responsibility of making any reports or keeping any records with respect thereto.

12. In accepting this order the seller certified that these goods were produced in compliance with all applicable requirements of Sections 6, 7 and 12 of the Fair Labor Standards Act of 1938, as amended, and of the regulations and orders of the United States Department of Labor issued under Section 14 thereof. It will be necessary in order for us to honor your future invoices to us that the above clause or a substantial equivalent thereof appear on your invoices.

13. By acceptance of this order, seller warrants that the prices specified do not exceed the maximum prices established under any applicable United States law or regulation thereunder.