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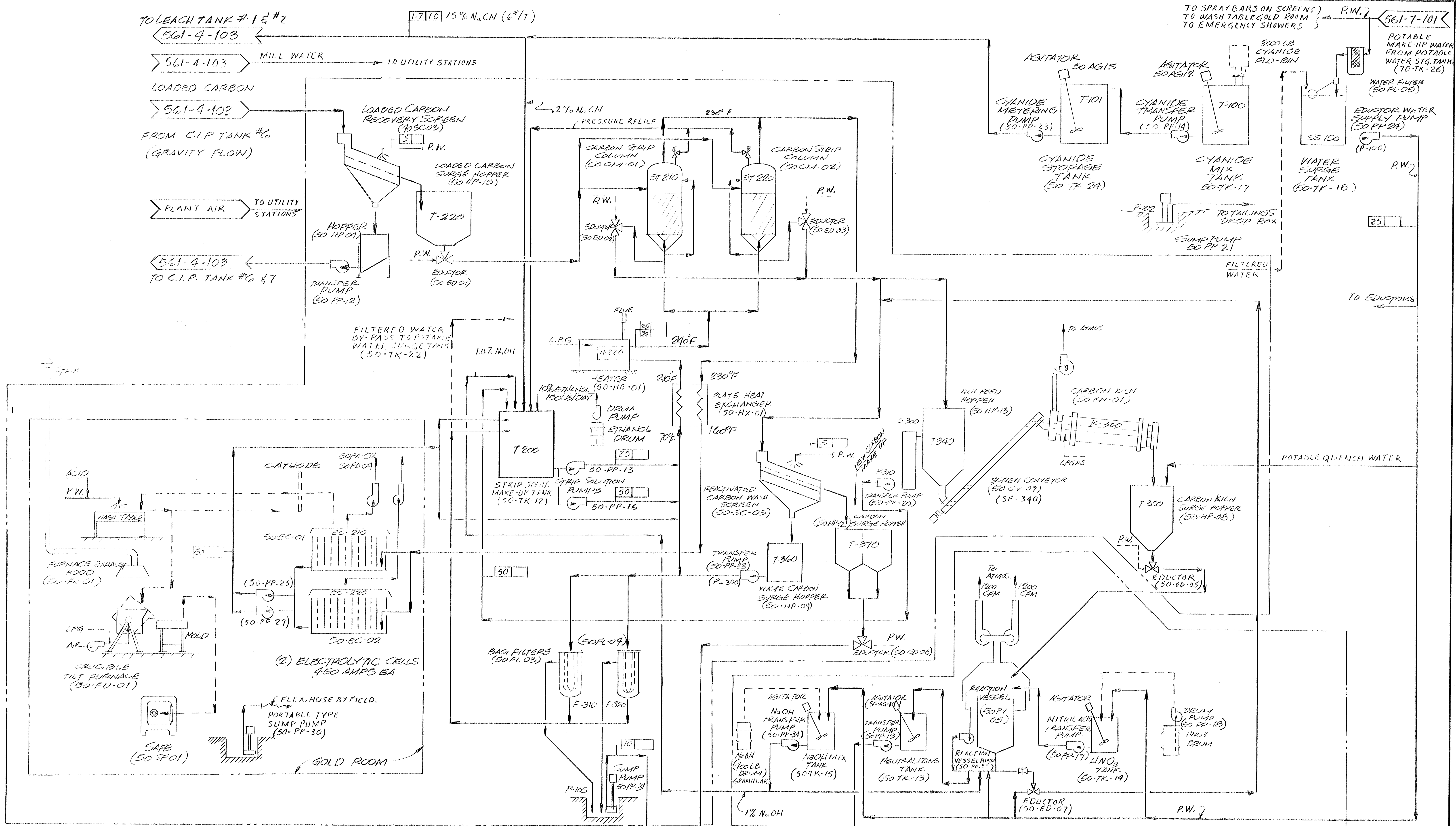
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TO LEACH TANK #1 & #2  
561-4-103

561-4-103 MILL WATER TO UTILITY STATIONS

LOADED CARBON  
561-4-103  
FROM C.I.P. TANK #6  
(GRAVITY FLOW)

PLANT AIR TO UTILITY STATIONS

561-4-103  
TO C.I.P. TANK #6 & 7

TO SPRAY BARS ON SCREENS TO WASH TABLE GOLD ROOM TO EMERGENCY SHOWERS  
P.W. 561-7-101

FILTERED WATER BY-PASS TO POTABLE WATER SURGE TANK (50-TK-22)

10% N.O.H

L.P.G.

HEATER (50-HE-01)

10% ETHANOL (50-ETH-01)

DRUM PUMP

ETHANOL DRUM

STRIP SOLUT. MAKE-UP TANK (50-TK-12)

STRIP SOLUTION PUMPS (50-PP-13, 50-PP-16)

TRANSFER PUMP (50-PP-20)

WASTE CARBON SURGE HOPPER (50-HP-09)

TRANSFER PUMP (50-PP-33)

BASE FILTERS (50-FL-03)

F-310 F-320

SUMP PUMP (50-PP-31)

P-105

1% NaOH

AGITATOR (50-AG-1)

TRANSFER PUMP (50-PP-12)

TRANSFER PUMP (50-PP-13)

TRANSFER PUMP (50-PP-17)

EDUCTOR (50-ED-07)

DRUM PUMP (50-PP-18)

INOS DRUM

TO LEACH TANKS NR 1 & 2  
561-4-103

561-4-103  
TO C.I.P. TANK #10

GOLD RECOVERY BLDG.  
BARREN SOLUTION

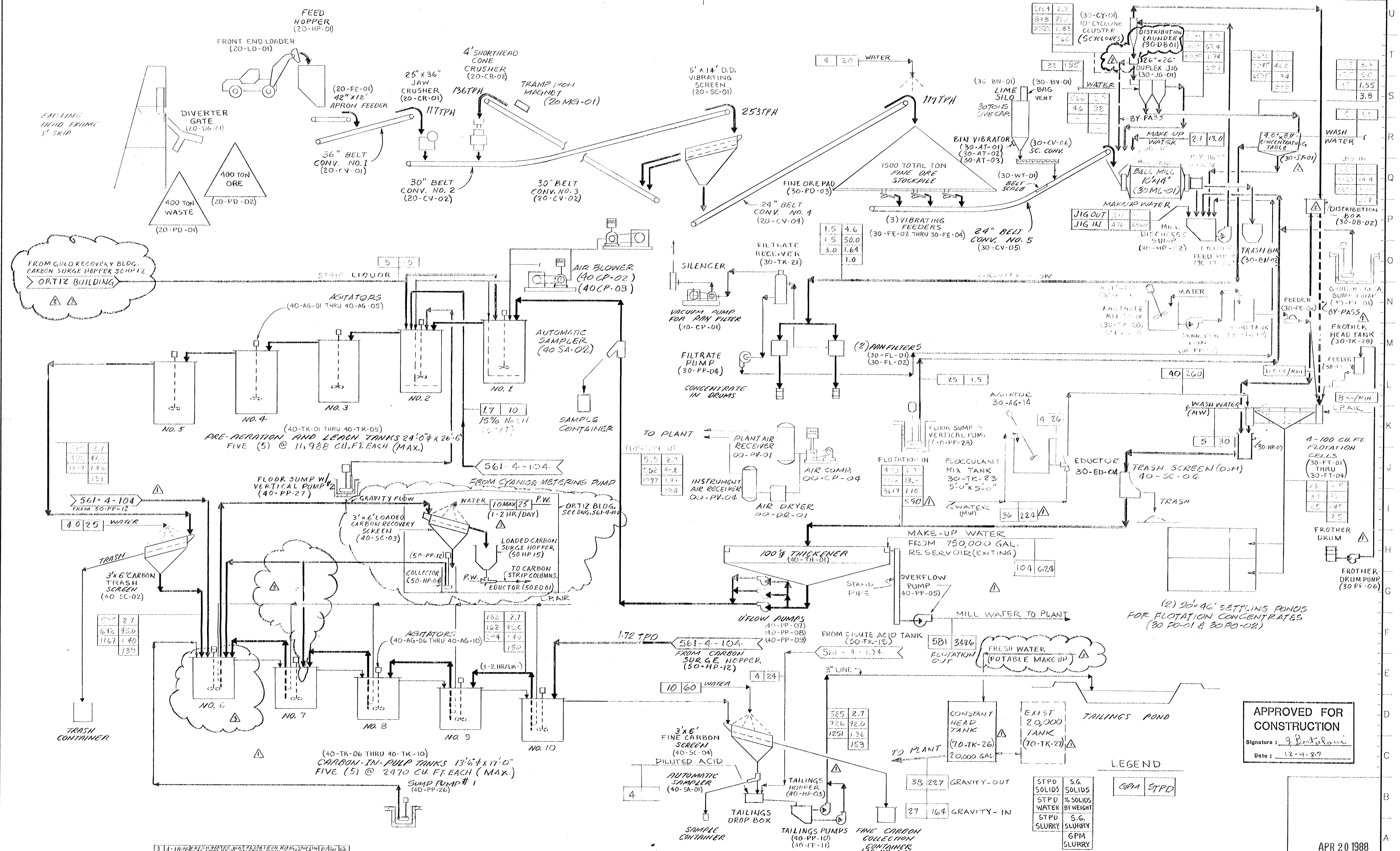
CARBON TREATMENT BLDG.

TO TAILINGS DROP BOX  
561-4-103

APPROVED FOR CONSTRUCTION  
Signature: *[Signature]*  
Date: 4-19-88

APR 20 1988

561	4-103	FLOW SHEET 1 OF 2	3	4/10/88	REVISED & REDRAWN	WILKINSON	4-4-88	STAN WEST MINING CORP. Mc CABE GLADSTONE PROJECT YAVAPAI COUNTY ARIZONA	DESCRIPTION PROCESS FLOWSHEET "VORTIZ" STRIPPING PLANT SHT 2 OF 2	Cimetta Engineering & Construction Co., Inc. TUCSON, ARIZONA	C.E.C. JOB No. 87-561 CLIENT JOB No. DRAWING No. 561-4-104 REV. 3
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**APPROVED FOR CONSTRUCTION**  
 Signature: *[Signature]*  
 Date: 12-4-87

APR 20 1988

No.	DATE	REVISIONS	BY	No.	DATE	REVISIONS	BY
1	12-30-87	ISSUED FOR CONSTRUCTION		1	12-30-87	FOR REVISIONS AND DATES	
2	3-10-88	RELOCATED SCREEN 40-SC-03, ADDED DISTRIBUTION LAUNDER & BOX, ORTIZ BLDG., COLLECTOR COLUMN WITH PUMP		2	3-11-88	CLIENT	
3	4-18-88	FRESH WATER WAS FROM TAILING POND, SUPPLIED FROM 750,000 GAL. RESERVOIR (EXITING)		3	3-11-88	FIELD	
4	12-30-87	SUMP & TAILINGS HOPPER DELETED, ADDED CARBON TRANS. PUMP, LINE TO CIP. TK. NO. 6, FROTHER PUMP & TANK.		4	4-20-88	BIDS	
5	12-30-87	CONCENTRATING TABLE WAS 3.5' X 7'		5	12-30-87	REVISIONS	

STAN WEST MINING CORP  
 MR. GAGE - GLADSTONE PROJECT  
 YAVAPAI COUNTY, ARIZONA

PROCESS FLOWSHEET  
 GOLD/SILVER  
 500 TPD SHIT. 3 OF 2

imetta  
 Engineering &  
 Construction Co., Inc.  
 TUCSON ARIZONA

JOB No: 87-561  
 CAD No: NONE  
 SCALE: NONE  
 561-4-103

**VISITE DE LA MINE McCABE  
PROPRIÉTÉ DE STAN WEST MINING CORP.  
ARIZONA**

**Les 4, 16, 17 et 18 octobre 1989**

**PAR: Jean Boissonnault**

**VISITE DE LA MINE McCABE  
PROPRIÉTÉ DE STAN WEST MINING CORP.  
ARIZONA**

**Les 4, 16, 17 et 18 octobre 1989**

**PAR: Jean Boissonnault**

**VISITE DE LA MINE McCABE, PROPRIÉTÉ DE  
STAN WEST MINING CORP. PRES DE PRESCOTT  
EN ARIZONA, LES 4, 16, 17 ET 18 OCTOBRE 1988.**

La compagnie Stan West Mining Corporation possède à un mille au sud-ouest de la ville de Humbolt ou 18 milles au sud de Prescott, Arizona, une propriété couvrant une superficie de 8 milles carrés. Cette dernière inclut les terrains de deux anciens producteurs importants soit, la mine de polysulfures connue sous le nom de Iron King (1906-1968) et la mine d'or McCabe-Gladstone (1903-1934), ainsi qu'un certain nombre d'occurrences minéralisées de moindre importance. Stan West a procédé depuis le début des années 1980 à une série de travaux de cartographie, prospection, géochimie et géophysique suivi de travaux de sondages au diamant qui furent en grande partie concentrés sur l'extension vue en profondeur (800-1 200 pieds) des structures aurifères McCabe-Gladstone et la zone "Little Kicker".

**Iron King Mine**

**Historique: Production 1906-1968**

Concentrateur démantelé en 1970, 80 000 tonnes de minerai oxydé de la surface à - 200 pieds.

Sept puits, galerie à tous les 100 pieds.

Longueur du Gisement : 2 500 pieds.

Exploitation de la surface à 2 300 pieds.

Puits le plus profond 2 500 pieds (puits #7).

Producteur de concentrés de Zn et Pb.

6 millions de tonnes @ 0.22 oz d'or, 4,7 oz d'argent, 3,0 % Pb,  
9,0 % Zn et 0,33 % Cu

**Récupération métallurgique:**

Or:	58-61 %
Ag:	78-86 %
Pb:	68-93 %
Zn:	68-89 %
Cu:	45-64 %

**Concentrateur:** 225 @ 1 000 tonnes par jour  
 Concentré de Zn: Zn et Cd  
 Pb: Pb, Au, Ag, Cu

**Gisement:** Douze lentilles de sulfures massifs, disposées en échelon dont l'épaisseur variait de 2 - 20 pieds dans des schistes à séricite et clorite, direction N21°E, pendage 75° Ouest. Les lentilles auraient été exploitées à leur limite. La roche encaissante était d'une faible compétence, l'exploitation fut faite en partie par "square sets".

### Mine McCabe - Gladstone

La mine comprenait quatre lentilles principales et une cinquième de moindre importance. Les deux lentilles plus au nord desservies par le puits de la Gladstone furent exploitées jusqu'à une profondeur de 800-900 pieds tandis que les trois autres lentilles desservies par le puits de la McCabe atteignaient 1 100 pieds. Sur les sections longitudinales, ces lentilles occupent une surface de 1 540 000 pieds carrés. En utilisant une épaisseur moyenne de 4,5 pieds et un facteur de tonnage de 11 pieds cubes à la tonne, on obtient qu'environ 630 000 tonnes courtes furent extraites. Selon les records de Stan West quelque 78 000 onces d'or auraient été produites, ce qui correspond à 0,12 once d'or récupérée, assumant une récupération métallurgique de 85 % on obtiendrait une teneur de minerai de 0,145 oz à la tonne. Dans un cas optimiste, on pourrait peut-être estimé à 150 000, les onces produites ce qui indiquerait

alors du minerai titrant en moyenne 0,28 oz.


### Potentiel d'exploration

La propriété est grande soit 4 milles par 2 milles. La prospection fut effectuée sur toute la propriété et les anciennes veines et "showings" furent échantillonnés et des forages furent effectués sur les zones les plus prometteuses. À la lumière des travaux effectués à date, le potentiel des zones de sulfures semblables à celles de l'Iron King ou zone aurifère McCabe-Gladstone est très limité. La plus prometteuse, "Adventure", fut investiguée à partir du 8e niveau de la mine Gladstone il y a quelques années, par cinq forages dont les résultats furent négatifs.

### Conclusion

Au mois de septembre et octobre, le minerai usiné avait une teneur de 0,15 oz et 0,11 ce qui semble en accord avec les chiffres de 0,145 oz que nous avons mentionné plus haut. Jusqu'à maintenant, l'évaluation du minerai s'est fait à partir du développement des galeries sans tenir compte des forages entre les niveaux qui indiquent des rétrécissements fréquents de la veine.

Pour ces raisons, il me semble fort peu probable que l'on puisse parvenir à obtenir à usiner une teneur supérieure à 0,2 oz d'or à la tonne.

  
Jean Boissonault  
Vice-président Exploration

Le 14 décembre 1988





# **C//MBIOR**

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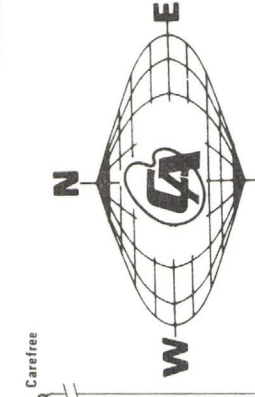


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**STREETS AND ROADS INDEX**

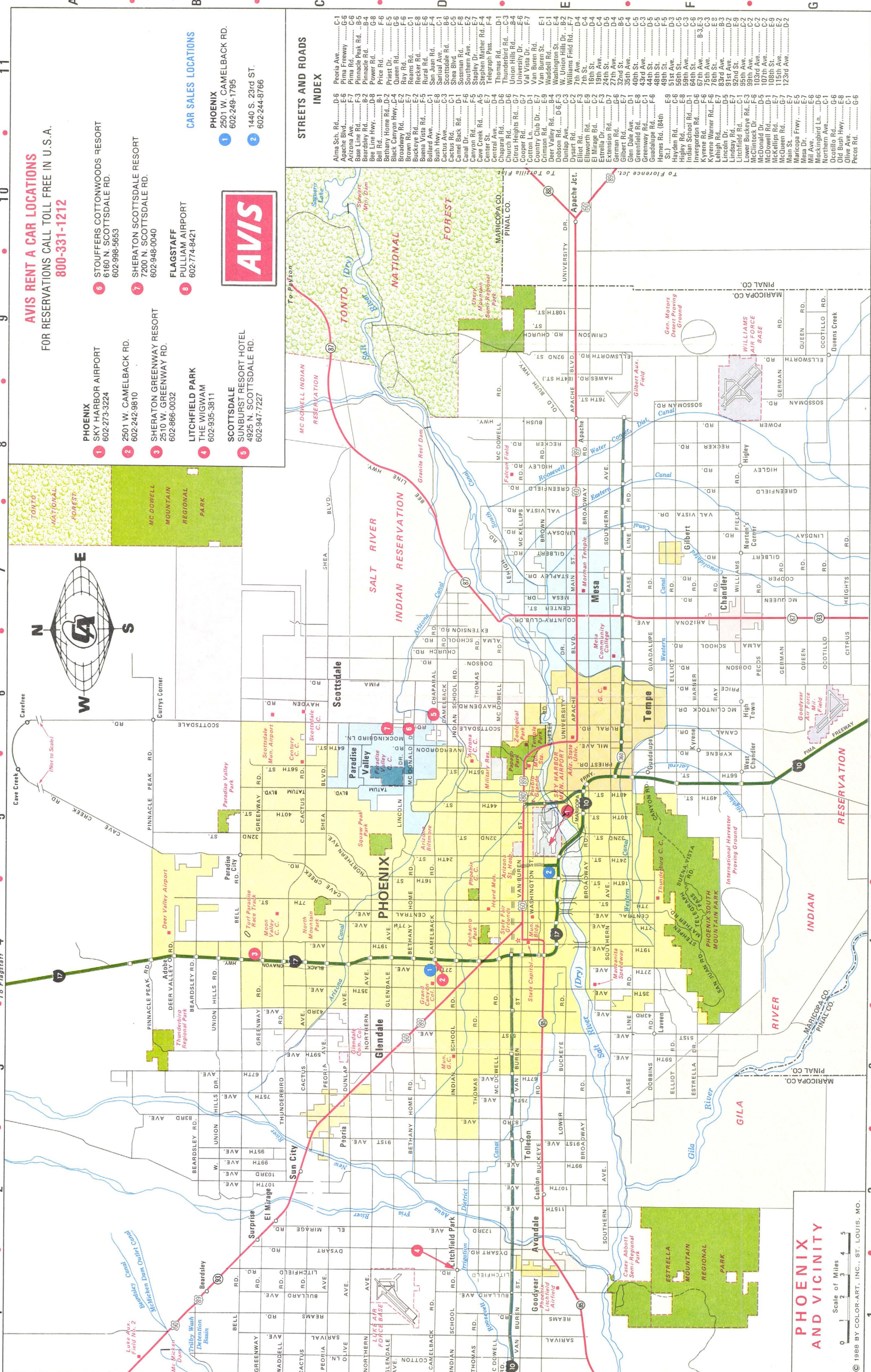
Alma Sch. Rd. ....	D-6	Peoria Ave. ....	C-1
Apache Blvd. ....	E-6	Pima Freeway ....	G-6
Arizona Ave. ....	F-7	Pinnacle Peak Rd. ....	B-5
Base Line Rd. ....	F-3	Pinnacle Peak Rd. ....	B-5
Beardsley Rd. ....	B-2	Power Rd. ....	G-8
Bell Rd. ....	B-1	Price Rd. ....	F-6
Bethany Home Rd. ....	D-2	Priest Dr. ....	E-5
Black Canyon Hwy. ....	J-4	Queen Rd. ....	G-6
Broadway Rd. ....	E-7	Reams Rd. ....	C-1
Brown Rd. ....	E-2	Reams Rd. ....	C-1
Buckeye Rd. ....	F-5	Recker Rd. ....	E-8
Buena Vista Rd. ....	F-4	Rural Rd. ....	E-6
Bullard Ave. ....	C-1	Rural Rd. ....	E-6
Bush Hwy. ....	E-8	San Juan Rd. ....	C-1
Cactus Ave. ....	C-3	Scottsdale Rd. ....	B-6
Camelback Rd. ....	D-1	Shea Blvd. ....	C-5
Canal Dr. ....	D-1	Southern Ave. ....	E-2
Canyon Rd. ....	F-6	Southern Ave. ....	E-2
Cave Creek Rd. ....	A-5	Stapley Dr. ....	F-4
Center St. ....	E-7	Stephan Mather Rd. ....	F-4
Chapel Rd. ....	D-6	Telegraph Pass. ....	F-1
Chrus Heights Rd. ....	G-7	Thomas Rd. ....	D-1
Cooper Ln. ....	D-1	Thunderbird Rd. ....	C-3
Country Club Dr. ....	E-1	Union Hills Rd. ....	E-4
Crismon Rd. ....	E-9	Washington St. ....	E-4
Dunton Ave. ....	C-3	W. Union Hills Dr. ....	F-7
Dunton Ave. ....	C-3	Williams Field Rd. ....	B-2
Elliott Rd. ....	E-3	7th Ave. ....	C-4
Elmwood Rd. ....	C-2	16th St. ....	D-4
Elmwood Rd. ....	C-2	19th St. ....	D-4
Elmwood Rd. ....	C-2	24th St. ....	D-4
Elmwood Rd. ....	C-2	27th St. ....	D-4
Elmwood Rd. ....	C-2	32nd St. ....	D-4
Elmwood Rd. ....	C-2	35th St. ....	D-4
Elmwood Rd. ....	C-2	40th St. ....	D-4
Elmwood Rd. ....	C-2	43rd Ave. ....	D-5
Elmwood Rd. ....	C-2	44th St. ....	D-5
Elmwood Rd. ....	C-2	48th St. ....	D-5
Elmwood Rd. ....	C-2	49th St. ....	D-5
Elmwood Rd. ....	C-2	51st Ave. ....	D-5
Elmwood Rd. ....	C-2	56th St. ....	D-5
Elmwood Rd. ....	C-2	59th St. ....	D-5
Elmwood Rd. ....	C-2	64th St. ....	D-5
Elmwood Rd. ....	C-2	67th Ave. ....	B-3
Elmwood Rd. ....	C-2	75th Ave. ....	B-3
Elmwood Rd. ....	C-2	76th St. ....	E-8
Elmwood Rd. ....	C-2	81st Ave. ....	E-8
Elmwood Rd. ....	C-2	91st Ave. ....	E-8
Elmwood Rd. ....	C-2	92nd St. ....	E-8
Elmwood Rd. ....	C-2	95th Ave. ....	E-8
Elmwood Rd. ....	C-2	99th Ave. ....	E-8
Elmwood Rd. ....	C-2	103rd Ave. ....	E-8
Elmwood Rd. ....	C-2	107th St. ....	E-8
Elmwood Rd. ....	C-2	108th St. ....	E-8
Elmwood Rd. ....	C-2	115th St. ....	E-8
Elmwood Rd. ....	C-2	123rd Ave. ....	D-2



**PHOENIX AND VICINITY**

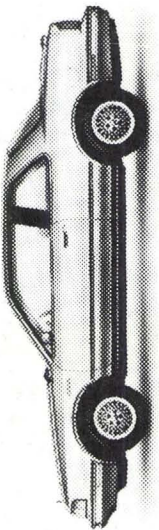
Scale of Miles  
0 1 2 3 4 5

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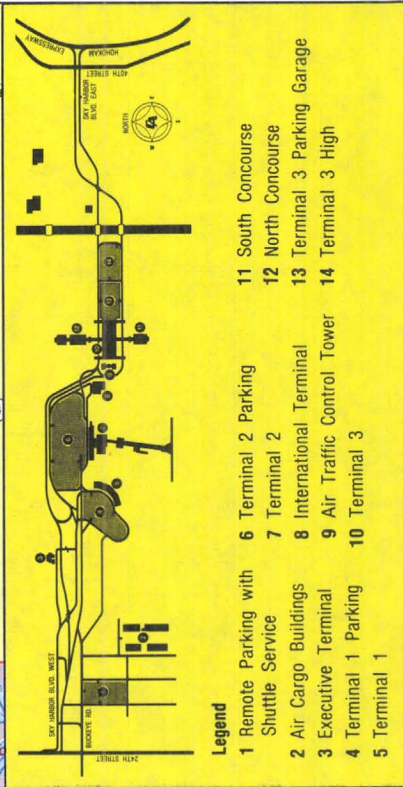
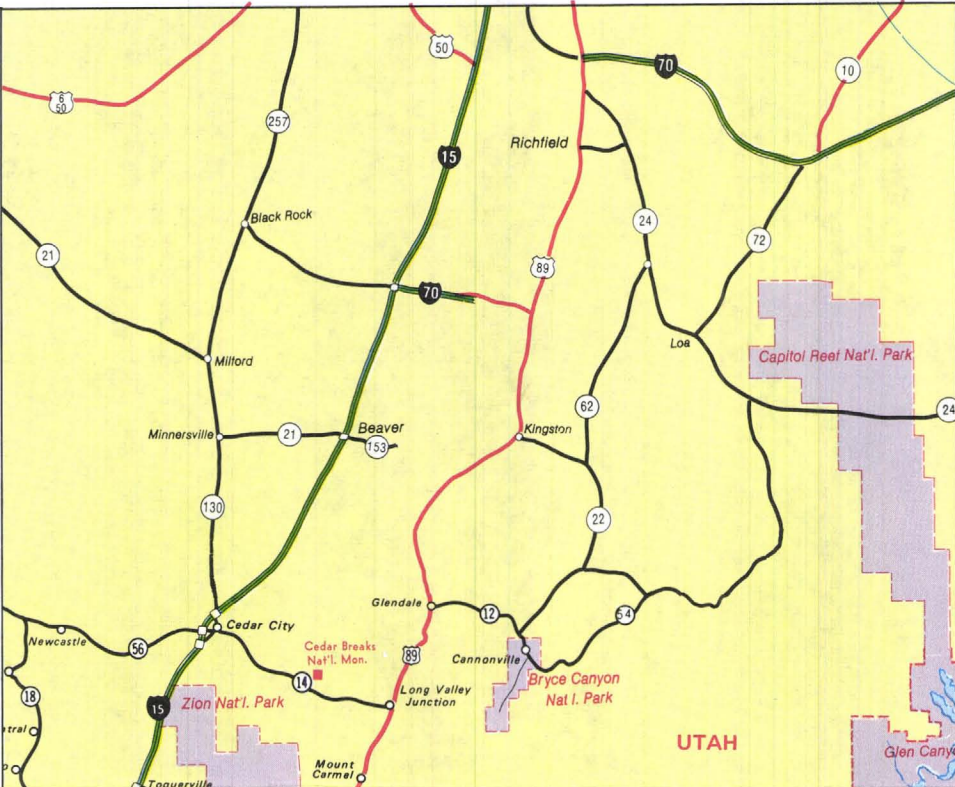




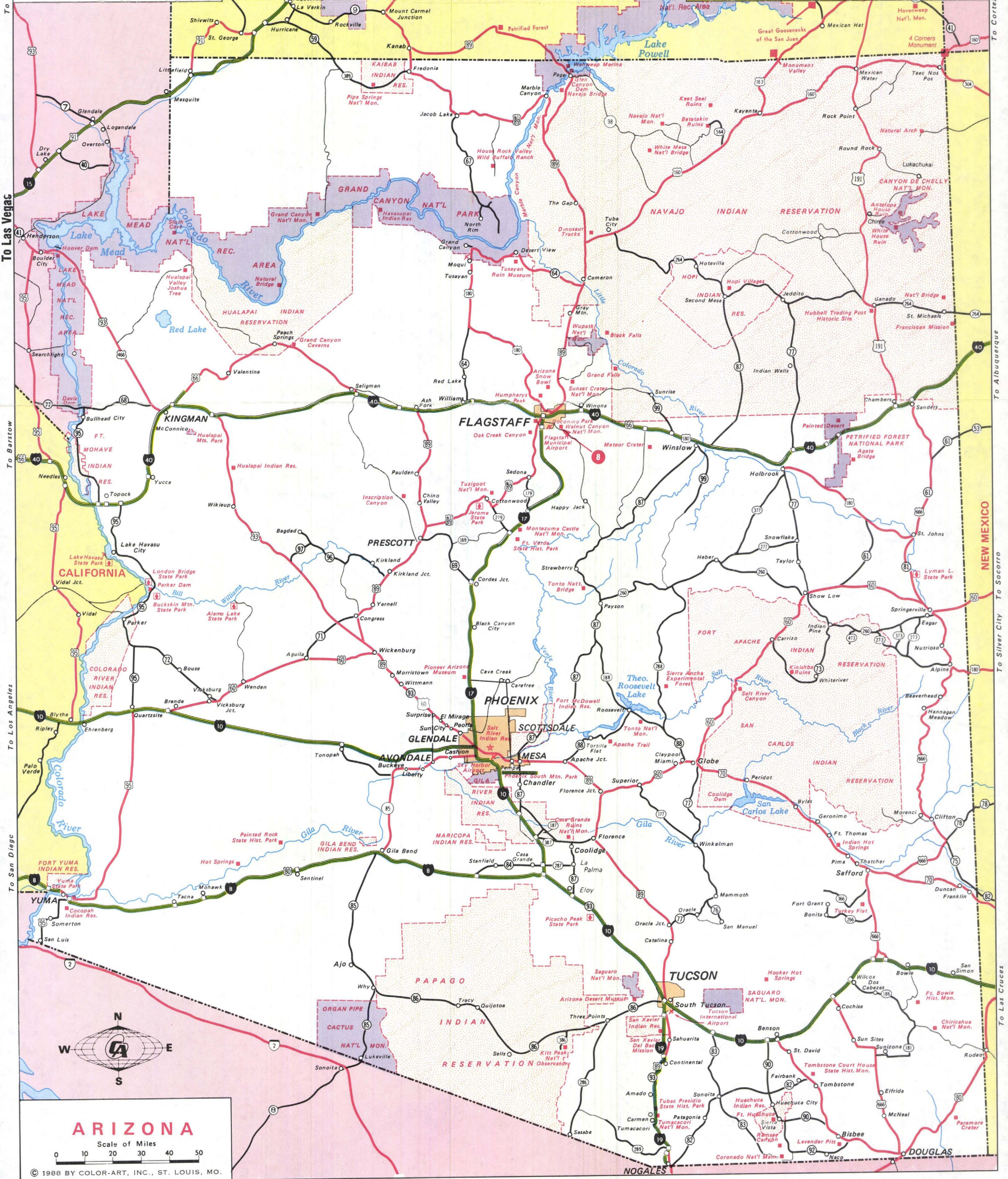
We try harder.



Avis features GM cars. Oldsmobile Cutlass Ciera



TERMINAL 1	TERMINAL 2	TERMINAL 3
SCENIC AMERICAN SUN WEST GOLDEN PACIFIC SOUTHWEST STATES WEST MESA HAVASU	TWA UNITED AIR ALASKA BRANIFF U.S. AIR MIDWAY PIEDMONT	AMERICAN CONTINENTAL DELTA EASTERN NORTHWEST AMERICAN WEST WESTERN EXPRESS SKY WEST



To Las Vegas, To Barstow, To Los Angeles, To San Diego

To Cortez, To Albuquerque, To Silver City, To Socorro, To Las Cruces

Sheldon:

Proprietary: 22000 x 15000 : 4 miles x 2 miles

Idaho claims

Lelan, Jessie: in granodiorite

Adventure: 5 holes from the 8<sup>th</sup> level

Geochem: soil survey 25'

⊗ No Au assay

6 Mc Cube surface ceramite

No anomaly S of M.C.

Good Zn-Cu anomalies

granodiorite: au and tertiary

Product  
77,800 ounces

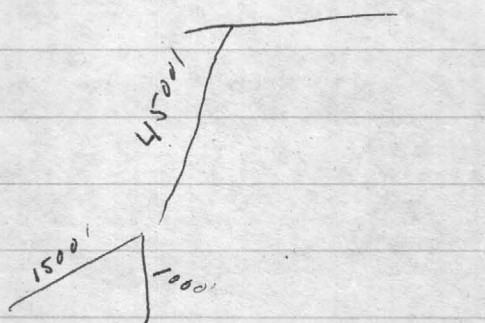
Gladstone: vein 10" on 11<sup>th</sup>

Mc Cube 11<sup>th</sup> vein material 3'-5' : moy. 0.39

1903-1910 47,000t moy. 31.00 on 1 1/2 oz

8<sup>th</sup> level: 442' @ 2.03

Hennetta



10/18/88

OCTOBER (13 days)

<u>TONS MILLED</u>		<u>GOLD IN CIRCUIT</u>	
Ball Mill	0.108	Leach	100 ozs
Leach	0.083	CIP Tanks	250 ozs
Tails	0.030	Ball Mill	40 ozs
Head Grade	*0.190	Cyclone	70 ozs
(1st 7 days)		Thickener	40 ozs

Dunces Poured through 10/14 = 516 Au  
1345 Ag

Stockpile tons @ start of month = 18,000 tons

\*Head grade comprised of 1369 tons from stopes (muck sampled)  
grading 0.225 opt Au

SEPTEMBER

TONS HOISTED 5160

TONS MILLED 7041

Ball Mill	0.149
Leach	0.113
Tails	0.032

\*Head Grade 0.205 opt Au

Dunces Poured 310 Au, 852 Ag

Stockpile @ start of month = 20,500 tons

\*3,199 tons @ 0.278 (stope ore) muck sampled  
1,961 tons @ 0.087 (drift ore) chip sampled



SILAS C. BROWN & ASSOCIATES  
GEOLOGICAL CONSULTANTS

PRELIMINARY GEOLOGICAL REPORT  
OF THE  
McCABE-GLADSTONE MINE PROPERTY  
Yavapai County, Arizona

INTRODUCTION

The McCabe-Gladstone mine property consists of eight (8) patented lode claims totaling about 150 acres. These claims are located in Sections 21, 29 & 30, T 13 N, R. 1 E., G & SRPM, Yavapai County, Arizona.

The writer made a field inspection of the property on October 1, 1978 with Mr. Richard Schrimsher and Mr. Dutch Seebold of Prescott, Arizona. Because of the flooding and caving conditions of the shafts, most data were acquired from reliable sources such as the U.S.G.S. Folios, Bulletins and files and from the Department of Mineral Resources files. Additional data were obtained from consulting reports by J. P. Lebow and Lloyd T. Emory.

The property has not been worked since 1934 when a 200-ton flotation mill was used to treat old gob and dump material. The Gladstone shaft was unwatered at that time and some gob removed. No data are available as to the amount of material milled or its value.

A map of the patented claims involved is not included with this report, however, the complete legal description is available with Mr. Schrimsher of Prescott.

LOCATION AND ACCESSIBILITY

The property is located about 4½ miles southwest of the town of Humboldt. The road from Highway I-17, through the Iron King property, is a dirt road which could be made



passable for heavy equipment with only limited road work. One culvert would have to be built in Galena Wash to make the road passable throughout most of the year.

Most equipment and supplies are available at Prescott, about 20 miles away, or at Phoenix about 70 miles to the south. Super Highways between both cities pass within  $3\frac{1}{2}$  miles of the property.

#### GENERAL GEOLOGY

The McCabe-Gladstone property lies in a highly mineralized belt in the Bradshaw Mountains. Higher gold concentration generally occurs where abundant iron oxides are present. The iron content of the shipping ore from the McCabe and Gladstone mines averaged 24.6%.

The country rock is primarily Yavapai Schist and the ore bearing dikes are mostly rhyolite-porphry. Quartz diorite outcrops to the west and south. A quartz diorite stock was reported in the mine.

The intersection of two veins is always a good place to explore. This theory has been proven by the stoping of the Boundary Ore shoot from the 1000-foot level to the surface. Below that depth, new ore should be encountered.

The Gladstone dike has an average strike of  $56^{\circ}$  East and dips  $72^{\circ}$  SE while the McCabe dike has the same strike and a dip of  $77^{\circ}$  SE. The cross-dike may be a fault offset of only one dike. The Gladstone and Cross veins intersect on the east line of the Sink to Rise claim and the south line of the Gladstone claim. The Cross dike strikes roughly north-south. Emory thinks the cross vein connects and is part of the McCabe-Gladstone veins, however, a fault is more likely.

The dikes have an average width of about 15 feet.

the veins average about 3½ feet and the ore shoots average about 12 inches thick. Assays along the 8th level of the Gladstone mine showed the ore shoots to range from 6 inches to 60 inches and values from \$2.40 to \$183.25 using \$20/oz gold and .50/oz silver. Present day prices would average more than 10 times that. The average value of all the assays for a distance of 442 feet along the 8th level would be over \$40/ton or over \$400/ton at today's prices.

#### PRESENT PROPERTY CONDITIONS

The Gladstone shaft was flooded from 1910 to 1934 when it was unwatered for a short time. In June, 1934, mine ore, mixed with old gob and dump material, was treated in a 200-ton flotation mill operated by H. Fields and Associates. No data are available as to the amount of ore milled, its value or how long the mill operated.

The dumps have a volume of an estimated 200,000 tons, plus or minus 10%. Various assays ranged from \$2.50 to \$6.00 per ton with an average of about \$4.00. At today's prices, the dump is expected to average near \$40.00 per ton taking into consideration the value of gold, silver, copper, lead and zinc. Using a rather conservative figure of \$30.00 per ton, the dump is worth approximately \$6,000,000.

In addition to the dump, an estimated 100,000 tons (plus or minus 10%) of tails are present with an estimated value of about \$35.00 per ton. This average value is based on various reports and records of assays taken over the years but mostly prior to 1913. Some extreme values were not used as they were no doubt hand-picked rather than cross section samples.

Since the mines have not been worked for the past 65 to 70 years, the mines are full of water and the tailings dump eroded by runoff and flash floods. Large blocks of tails

is still easily available for treatment

A more accurate estimate of the tails and dump is impossible without a more detailed survey and is recommended before machinery is moved in for operations. More complete and reliable samples should also be taken for assay.

Water from the mine shafts could be used in the milling operation and at the same time dewater the mine. This would open the mine so that gob could be made available to the mill. Various reports as to the amount of gob available could not be confirmed.

#### CONCLUSIONS AND RECOMMENDATIONS

The dump and tails should be milled using about a 200-ton mill. All data available on the assays indicate the dump and tails should average over \$30.00 per ton at today's prices. The present estimates of 200,000 tons of dump and 100,000 tons of tails should be given an error of plus or minus 10%.

Mr. J. P. Lebow in his report of 1933 made the following statement: "If the premium on gold holds as it is today a good profit could be made from just working the dumps".

Mr. Lloyd T. Emory, in a report dated 1926, also recommended the dump material be milled. Based on this a good sampling of the tails and dump should be made as soon as possible.

Most of the ore above 1100 feet in the Gladstone mine has probably been removed. Good ore shoots were encountered at the 1100 foot level and were strongly developed so these shoots no doubt continue downward. Deeper horizons and lateral extensions, particularly westward, should be explored to outline new and extended ore bodies.

Because of the location of the property in the

mineralized belt of the Bradshaw Mountains, the data available showing good concentration of marketable ore and the easy accessibility to the property adds up to a very good prospect for above average profits. Good management and sufficient funds are necessary for a successful operation.

*Silas C. Brown*

Silas C. Brown  
Geological consultant



1927

REPORT  
ON THE  
GLADSTONE-McCABE MINE PROPERTY  
BIG BUG MINING DISTRICT,  
YAVAPAI CO.  
ARIZONA

INTRODUCTION

The purpose of this investigation was to determine from a personal examination of the surface, underground workings that are accessible, office records and other sources, the present condition of the Gladstone-McCabe property and to condense in an orderly form such data as will assist in determining the advisability of re-opening the mine.

Field work at McCabe was commenced on February 18th and concluded on March 5th. To Mr. John L. Cavis of McCabe, the present manager of the property our thanks are due for his hearty co-operation while we were examining the property and records, also for much of the past history of the district.

LOCATION AND ACCESSIBILITY

The property is located in the Big Bug Mining District of Yavapai County, Arizona. It is  $4\frac{1}{2}$  miles southwest of the town of Humboldt and  $2\frac{1}{2}$  miles northwest from Huron Siding on the Prescott and Middleton Branch of the Atchison Topeka and Santa Fe Railway. It is easily reached over fair country roads from either place. Owing to the very limited passenger train service on the railway, it is much better to motor out from Prescott which is only 20 miles from Humboldt over a state highway. Humboldt is only a smelter town and the shopping facilities are limited, but practically any supplies or light equipment can be purchased in Prescott the county seat of Yavapai County or in Jerome which is 20 miles northeast also over a state highway. Jerome is the center of a group of rich and producing copper mines of which the United Verde, a Clark property, is the largest. Yavapai County has an annual production from its mines amounting to \$20,000,000 a large part of which comes from the Bradshaw and Jerome quadrangles.

TOPOGRAPHY AND CLIMATE

The Big Bug Mining District is located on the northeast slope of the Bradshaw mountains and the part in which the Gladstone-McCabe group of claims is located might be termed the foot-hill area. A few miles further north the country flattens out into the south end of Lonesome Valley and the view to the northward is almost unlimited. The San Francisco peaks marking the northern horizon are over 70 miles away. Around McCabe the general appearance is of well rounded low hills covered with scrub oak and manzanita. The elevation at the mines is approximately 5200 feet above sea level. The ground rises rapidly to the southwest to the summit of Mt. Elliott with an elevation of nearly 7,000 ft.

The climate is temperate and dry so that the extremes which hamper mining operations in so many parts of the world are not experienced. The average rain fall is around 18 inches. The few snows during the winter do not last long below the elevation of 6,000 feet and while the country roads are slippery for a short time after a snow fall or shower, a day of sunshine puts them in a passable condition.

### GEOLOGY

The oldest rock of the district is the Yavapai Schist interpreted as a metamorphosed sediment. Intruded through and at the present time standing above the Schist is the Bradshaw granite, of which the Bradshaw mountain group is largely composed. The marginal phase of the granite consists of diorite, grano-diorite and monzonite. The general geology is described in the U. S. Geological Survey Atlas, \* published some years ago. The geology is described more in detail and considerable information regarding the production of the mines of the district is given in a recently issued bulletin by Waldemar Lindgren.\*\*

The veins carrying the mineral deposits of the district can be divided into two general classes. Quartz-pyrite veins, whose principal values are in silver, lead and zinc. There are other deposits consisting of pyritic copper deposits in the schist and contact metamorphic deposits, but as the Gladstone-McCabe belongs to the vein type first mentioned these others will not be considered.

The Gladstone-McCabe group is located on the margin of an area of quartz diorite which is intruded into an amphibolitic schist. The Gladstone and McCabe veins cut across Galena Gulch at so slight an angle that they are nearly parallel to the general trend of the stream. The principal interesting feature of the situation is a rhyolite porphyry dyke which cuts the Gladstone and McCabe veins between the two shafts. From what could be learned from the records of the underground work this dyke seems to have been post mineral. However, it has undoubtedly exerted considerable influence on the present ore bodies which will be discussed further on.

### PAST HISTORY

The Sink to Rise claim was located in 1883 by Frank McCabe and the Gladstone by W. C. Parsons. The two locaters shortly afterwards formed a partnership and operated the properties together for some time. Later the Gladstone group which was composed of the Gladstone, the western end of the Sink to Rise and Gladstone Westerly Extension was worked by W. C. Parsons and Henry McCrum of San Francisco under the partnership arrangement which continued until 1900 when they sold out to a New York syndicate organized by Duncan N. Hood and incorporated under the name of the Ideal Mining and Development Co.

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\* Folio, #126, Bradshaw Mountains, by Jaggar and Palacne 1925.

\* U. S. Geological Survey Bulletin, #782. Ore Deposits of the Jerome and Bradshaw Mountain Quadrangles 1926.

The Ideal Company sank the Gladstone shaft 600 feet and did some drilling, but failed to develop any large ore body. (See Plate No. 4). Owing to the discouraging results obtained they ceased operations and leased their property in 1903 to Cecil G. Fennell.

In 1888 Judge E. W. Wells of Prescott and a Mr. Packard became interested in the McCabe claim and 491 feet of the east end of the Sink to Rise. In conjunction with McCabe and Parsons they organized the McCabe Mining Company, adding the Monopolist claim to the group.

In 1901, the McCabe Mining Company was sold to the Model Mining Company. In 1905, the McCabe mine was shut down during an excessively wet season when their pumping equipment was not adequate to handle the combined mine water and the seepage from the surface.

The McCabe group was purchased in December 1905 by the Ideal Mining and Development Company and combined with the Gladstone under the Fennell lease.

Most of the underground work as now shown on the plans was done during the Fennell operation. Owing to the 1907 panic and the closing down of the Humboldt smelter cutting off his market and also tying up about \$20,000 in an unpaid account Fennell became involved and had to cease operations. At the close of the Fennell term the Gladstone shaft had been sunk to the 10th level and some stoping done above the 10th level drift.

The Ideal Company kept the mine unwatered until August 1908 when the property was leased for a year to Massey, Flammer and Company. During this lease the Gladstone shaft was deepened 100 feet to the 11th level. The 11th level drifts were driven 361 feet east of the shaft and 420 feet west. All ore developed was mined and the reserve left by Fennell also taken out.

The Massey, (Flammer) and Company did not renew their lease at the end of the year. The Ideal Company resumed the pumping and kept the mine unwatered until November 1910. During this period some little work seems to have been done probably by leasers as the last reports show the 11th level heading as 478 feet east from the Gladstone shaft. Since 1910 the mine has been flooded.

A lease was taken on the property in 1915 by the C. M. Wolf Arizona Copper Company and although they did some surface work, they did not unwater the mine or make a serious attempt to operate it.

The property has since been idle except for the leasing of the McCabe mill dumps and a small amount of work which has been done by some leasers west of the Gladstone shaft between the 100 foot level and the surface.

#### PRESENT DEVELOPMENT

The surface lay-out and general plan of the property is shown on Map

1906 map. (4) - 975

4. From this plan it will be seen that the Gladstone and McCabe veins are roughly parallel about 250 feet apart on the surface. They are connected half way between the Gladstone and McCabe shafts, which are about 800 feet apart by what is known as the cross vein. The underground workings as they existed at the time the mine was closed down in 1910 are shown on Plan No. 5 which is a vertical longitudinal section taken parallel to the veins. This plate also shows the location of the ore shoots and gives the best general view of the underground work.

Plans Nos. 6 and 7 are horizontal projections of the different levels on a base plane. These Plans give a very good idea of the variation in the dip of the veins which averages 77 degrees S. E. for the McCabe and 72 degrees S. E. for the Gladstone. The general strike of both veins is N. 56 degrees E. The ore bodies as shown by the workings, followed the Gladstone vein to its intersection with the cross vein thence along the latter to the McCabe vein thence east on the McCabe. The plans almost suggest that the two veins and cross vein are one continuous system. The underground situation in the vicinity of the cross vein is somewhat obscured by the intersection of the so called Gopher dyke.

This dyke which is classified by Lindgren \* as rhyolite porphyry cuts the cross vein at a slight angle between the Gladstone and McCabe veins. It is apparently post mineral as the cross vein near the intersection was metamorphosed, reducing the sulphides to the metallic state. The dyke itself is practically barren of values except where it seems to have absorbed mineralization from the cross vein. This fracture zone probably extends to great depth and may be the explanation for the ore bodies in its vicinity.

UNDERGROUND CONDITIONS

At the time of our visit the water level was just below the 100 foot level in the Gladstone shaft and nearer the collar of the McCabe. as the latter shaft is on lower ground. Considering the length of time since the timbering in the Gladstone shaft has been in place, the part above the water level is in very good shape and not a great deal of it would have to be replaced. Mr. Davis informed us that he thought some timber would have to be replaced further down.

As we could not investigate the lower levels our opinion of them is based on the company's books which are in excellent shape, smelter returns, assay records and previous reports. The following is an extract from a report prepared by Messrs. E.L. Bartholomew and J. L. Davis in July 1910 while the pumps were still going and the lower levels accessible.

"The 1100 foot level has been driven 478 feet east of the Gladstone shaft and encountered the first ore shoot of commercial value at a distance of 80 feet from the shaft. This was stoped for a length of 30 feet and a height of 13 feet. The ore in this stope shows a total width of 12" and

\*Page 130, U. S. Geological Survey Bulletin 782. (1926) by Waldemar Lindgren.



while it was not of sufficient value to warrant further stopping for shipping purposes, the values in the 1000' level immediately above this stope and of which this is supposed to be a continuation were of fair average. This ore shoot has been a very consistent one.

"The second ore shoot was encountered at a distance of 356 feet from the shaft and extends to the face of the drift where further drifting of approximately 100 feet should continue in ore before reaching the end of this shoot at the junction with the Sink to Rise vein. A cut-out stope has been taken out for a length of 45 feet along the drift and a height of 8 feet.

@ 11<sup>th</sup> level

"The ore at the back of this stope shows an average width of 23" while in the drift the average width was 13".

"The ore shipped from this shoot amounted to 94.41 tons and yielded a gross value of \$1872.17.

# ~ 20/ton

"This shoot is known as the Boundary Ore Shoot and lies between the Gladstone and the McCabe Mines in the Cross Vein that joins the Sink to Rise and the Gladstone Veins and which has been consistently stoped from the 1000' level to the surface.

"The 1100 foot L.W. has been driven 421 feet west from the shaft. At a distance of 180 feet a raise was put through to the 1000 foot level and at 290 feet a stope was started which ran for 52 feet along the drift to a height of 26 feet. At 312 feet a winze was sunk to a depth of 11 feet but was discontinued on account of water.

"The drift, from the intersection of the cross cut from the shaft to the face - 421 feet - shows mineral throughout but is of such a disseminated character that its value for shipping purposes is prohibitive and at best would resolve itself into a milling proposition. This condition also holds true in the raise and stope.

"The average width of the ore along the drift for its entire length is 10.2 inches averaging in value \$19.98. The ore in the raise averaged in width 15 inches for an assay value of \$10.50.

"On the 1000 foot level there is also a body of second class ore containing approximately 650 tons of an average value of about \$12, between 80' and 210' west of the shaft."

Regarding the ore in sight the above mentioned report gives the following:

"With the exception of a block of ground, 100 feet west of the face of the 800 foot level east, in the McCabe mine,

about one third of which has been stoped, all of the ore so far developed has been exhausted. The face of the 800 foot L. E. shows 12" of ore of an assay value of 1.14 oz. gold and 2.2 oz. silver, and the highest point in the stope shows 6" of ore assaying 2.10 oz. gold and 1.0 oz. silver.

8th level.

"In the Gladstone Mine, with the exception of a small pillar containing about 13 tons assaying \$40 per ton, between the 400 foot L. and the 500 foot L. and included within chutes 6 and 8 on the 500 foot L; four small pillars between the 800 foot and the 900 foot levels containing approximately 50 tons, assaying \$30 per ton and included within chutes 5 and 13 on the 900 foot L. E.; and a small pillar between the 1000 foot and the 900 foot levels and situated between chutes 7 and 14 on the 1000 foot L. E.; all the ore between the McCabe and the Gladstone shafts above the 1000 ft. L. has been exhausted.

"On the 800 foot L. W. from 734' to 912' three pillars of ore have been left containing approximately 70 tons assaying \$30 per ton. On the 900 foot L. W. from 500' to 710' five pillars still remain containing approximately 66 tons of an assay value of \$30. On the 1000' L.W. from 258' to 500', five pillars still remain containing 55 tons of a value of \$30 per ton.

"In addition to this first grade ore, it is probable that some second class ore can be obtained in the vicinity of No. 1 chute 1000' L. measuring approximately 20' x 25' x 15"."

From the above it will be seen that the blocked out ore reserve is not very large. If the mine is re-opened expectations will have to be based on ore to be opened up by new development with the best prospects apparently on the west end of the property and below the 11th level.

TYPE OF ORE

The vein material is principally quartz massive rather than drusy. The metallic sulphides usually occur in the central part of the fissure and are present in quantity in the order named: pyrite, arsenopyrite, sphalerite, galena and chalcopyrite. An average analysis of the shipping ore is as follows:- \*

Silica.....	31.4%
Copper.....	2.0%
Lead.....	2.1%

\*From page 132, U. S. Geological Survey Bulletin No. 732.

Zinc.....	4.7%
Iron.....	24.6%
Arsenic.....	3.9%
Antimony.....	1.0%
Sulphur.....	20.4%
Gold.....	1.6 ounces per ton.
Silver.....	10.2 " " "

"The mill concentrates contained in 1907, for instance 1.1 ounces of gold and 4.1 ounces of silver to the ton. The ore is said to contain also some bismuth."

The veins vary in width from 3 to 15 feet. The average width of the shipping ore streak seems to be around 16". However, it is reported that on the 11th level especially to the west of the Gladstone shaft there is considerable ore disseminated through the vein in sufficient quantity to make it a millable product. According to the office records the shipping ore developed in driving the 11th level west from the Gladstone shaft over a distance of 370' had an average width of 10.2 inches with gold and silver values amounting to \$19.96 per ton. When the drift was being driven all the vein filling taken out varying from 3 to 5 feet was sent to the mill. The assays show this material averaged 0.392 oz. of gold and 3.54 oz. of silver per ton or a gross value of \$9.46 per ton, in these two metals.

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PAST PRODUCTION

From various sources believed to be reliable and the books of the company the following production figures were obtained:

"The gross value of the ores extracted by the locaters and subsequent owners, before the mines came under lease to Cecil G. Fennell is unknown, out from the most reliable information obtainable it is estimated as between \$1,000,000 and \$1,500,000.

"The gross values extracted by Cecil G. Fennell and the subsequent leasers, as shown by the statement herein, is over \$1,490,000 which would make the total production of the property, nearly \$3,000,000.

"The gross production of the Gladstone from March, 1903, and of the Gladstone and McCabe jointly, from 1906, was as follows:

Year	First class ore			Concentrates		
	Tons	Gro. Values	Average	Tons	Gro. Values	Average
1903	2738.31	\$ 57824.13	\$ 21.11	18.18	\$ 766.49	\$42.15
1904	4976.51	182083.42	36.59	384.66	13070.12	33.98
1905	4002.14	170331.87	42.56	389.85	18795.36	32.98
1906	14684.82	432164.74	29.43			
1907	11190.16	336388.67	30.06	414.75	12398.56	29.89
1908	2353.24	74051.58	31.44	31.24	872.73	27.93
1909	4161.67	143673.66	34.52	387.53	12932.69	33.37
"	98.71	2833.89	28.71	) These lots were taken out by		

1910	85.25	3430.40	40.24	)	<u>contractors after expiration of lease.</u>		
	44290.81	\$1402782.36	\$31.67	\$1806.22	\$58835.95	\$32.57	

Year	Second Class Ore			
	Tons	Gro. Value	Average	
1906	845.42	\$10038.41	\$11.67	
1907	1889.77	21074.10	11.15	
	2735.19	\$31112.51	\$11.36	<u>Total Values, \$1,492,730.82</u>

To the above figures which contain shipments down to the close of operations in 1910 may be added \$3,802.53 obtained from ore resulting from dump sorting and \$45,138.78 representing 3,026 tons of tailings which have been shipped. There have also been removed by leasers during the past two years 8,430 tons of tailings from the McCabe mill dump for which we do not have the gross figures, so the total production of \$2,691,672.00 is probably less than the actual amount.

#### RECOMMENDATIONS

In order to put the property on a working basis, practically all the necessary equipment would have to be purchased new. A list of the present equipment is attached. This list represents nearly everything that was in use at the time the property was closed down. In looking through the plant even a casual examination discloses that a number of the principal units were in bad repair when last in use. If they had been in good shape at the time of closing down and had the best of care during the intervening sixteen years, they would by this time be so out of date that it is questionable whether a new operator could afford to use them.

The Arizona Power Company now have a transmission line within one mile of the property. If reasonable rates could not be secured from them, which we are quite sure is the case, then an installation of two or more power units of the deisel or semi-deisel type would be necessary.

The pumping problem is one which should be given careful consideration, but in the light of present day equipment should not present any unusual problems. According to the records the mines seem to have an inflow of water varying from 60 to 80 gallons a minute should be provided, so arranged in two units that one could carry the load with the other as a stand-by and reserve.

With the increase in the cost of supplies and labor we do not consider it would be possible to operate as was done in the past, when shipping ore was hand-sorted in the stopes. Under present day practice all material removed from a working width would be sent to a mill operating on the selective flotation principal. This mill should be on the property. It is reported that the Humboldt mill is being altered to handle complexed ores, in which event it might be convenient to sell to them until such time as an ore reserve could be blocked out sufficiently large to justify the erection of a mill.

What has been produced by a mine is little upon which to base predictions as to the future out-put. If the values in lead and zinc are

considered, which would be the case if the ore were milled in a flotation mill and an average assay of 0.4 oz. of gold, 3.5 oz. of silver, 7.6% copper, 0.7% lead, 1.5% zinc, which seems to be indicated from the material taken from the west end of the eleventh level, then the gross value would be \$14.21 per ton. Ore of this value handled at the rate of 250 tons per day should yield a good profit provided competent management and sufficient funds are provided.

Philadelphia, Pa.  
March 31, 1927

Henrietta

Inc. 1909, in Arizona, as a reorganization of the Lyon Copper Co. Cap., \$5,000,000; shares \$1 par.

Property: 64 claims, near Mayer, Yavapai Co., Ariz., show fissure veins developed by a number of tunnels and crosscuts with 250' shaft.

**BIG LEDGE COPPER CO.**

ARIZONA

Office: 310 Sellwood Bldg., Duluth, Minn. Ehrich & Co., New York City, fiscal agents. Mines at Big Bug (Huron P. O.), near Mayer and Humboldt, Yavapai Co., Ariz.

Officers and directors: Ernest Le Duc, pres.; Charles Batre, v. p. and asst. sec.; D. D. Murray, sec.-treas.; John P. Trebilcock, supt.

Company is the successor of the Big Ledge Development Co.

Inc. in Arizona, Jan. 20, 1915. Cap., 3,000,000 shares; par value \$5.00; fully paid and non-assessable; increased from \$1,500,000, Aug. 3, 1917; 1,900,000 shares issued. The Development company was converted into an operating company, Feb., 1916, the name being changed to Big Ledge Copper Co. and the par value of shares increased to \$5, the number of shares remaining the same and exchange made share for share. The company states that there are 751,000 shares of stock held in escrow, the balance in the hands of the public. Of 1,500,000 shares of new stock, 1,000,000 is to be used for the acquisition of the Great Western Smelters holdings, etc., and the balance is reported to have been underwritten at \$2.00.

Property: consists of 3 groups of claims aggregating approximately 1,900 acres. The Black Hills group consists of 43 unpatented claims about four miles east of Humboldt, Arizona. The Butternut group consists of 2 patented claims and 22 unpatented claims; the Henrietta group consists of 7 patented claims and 7 unpatented claims.

There is a spur of the railway line to the Henrietta orebins, and a 3,800' aerial tramway, costing \$12,000 was built in 1917, to convey Butternut ore to the railroad.

Henrietta Group and Mine: this property shows a fissure vein averaging 5' thick, cutting through hornblendiic schists near a diorite intrusion. The vein carries several shoots whose ore contains copper-pyrite with pyrite and zinc sulphides in quartz. The claims cover 4,000' along the Henrietta vein and a considerable distance along a split or intersecting vein. The ore shoots so far developed an average width of 2' of ore reported to average \$20 in value.

Development: comprises a main haulage way, 2,300' long called the Henrietta, or lower tunnel. From this level the Le Duc shaft has been sunk 278' below the tunnel floor at a point 2,000' from the portal. Still farther west and over the hill are independent workings, made in former years, and recently reopened. These comprise shaft No. 1 with hoisting equipment to 300' depth and by No. 2 shaft to 450' level and below. An old upper tunnel 327' above the Henrietta is connected with it by a raise. At 150' below the main tunnel, the Henrietta vein is opened by over 550' of drifting. This will eventually be connected with the west workings noted above.

An intersecting vein, the Invincible, meeting the Henrietta where the Le Duc shaft is sunk, shows several inches of high grade ore, making a workable ore shoot at the intersection. This vein is reported to be opened by a 100' drift, south on the 150' level of the Le Duc shaft, with an upraise to the tunnel.

The Butternut Mine: this mine has a zone of silicified, pyritized schist over 20' wide, in which large lenticular masses of pyrite occur, showing low average values in copper and silver. A foot-wall band 2'-3' wide

carries high zinc content. The mine output will, it is believed by us, average less than 2% copper, being largely iron pyrite and quartz. This does not accord with the press reports of 4% of 4% ore on the 300' level, and of 10% ore on the 425' level.

**Development:** includes two old 1-compartment shafts, only 150' apart, one 300', the other 425' deep, and the new 3-compartment Batre shaft 98' deep in Sept., 1917. Principal development is on the 300' and 420' levels, drifts running along the vein showing 6' to 12' of pyrite ore. Mine has electric power, compressor, hoists, etc., and aerial tram 3,000' long will take ore to the railway.

**Production:** began March 12, 1917, shipping to the Mayer smelter (Great Western Smelters Corp.), under a 10-year contract calling for a charge of \$9 per ton. Company reported May 21, 1917, a daily average of 125 tons shipped from both mines, but both mine and smelter closed down shortly thereafter. The press reports of 7' of 14% ore in the face of the 420' level are not considered any more truthful than those crediting the mine with 15' to 20' of 8% ore, which when checked by sampling proved to be 9' of 1.8% "ore," high in silica.

The Black Hills or Big Ledge group of claims, 4 miles east of Humboldt, comprises an extensive acreage of land not considered worth paying taxes on.

**Opinion:** in view of the very remarkable statements as to earnings, ore reserves and smelter operations issued by the company officers, during the past two years, it is well to note that an exhaustive report on the property made by Walter Harvey Weed in the Fall of 1916, gave a total valuation of \$600,000 for the property, equivalent to about 40c a share for the stock. The so-called Big Ledge smelter did not then belong to the company, and any profit it might make would not help Big Ledge shareholders. The smelting rate of \$9 per ton, on a 10-year contract is considered exorbitant, compared with charges for similar ores furnished in large quantity for long periods, at other smelters.

According to press reports, apparently inspired, the Big Ledge smelter, financed by insiders, by a bond issue, has been unloaded on the company, the capitalization being doubled for the purpose. In our opinion this materially depreciates the value of the stock. Company is regarded as a rank example of frenzied finance whose glittering promises are all unfulfilled and which not even war time prices for copper and silver can redeem.

It is reported Sept., 1917, that E. Le Duc and other directors had lost suit against them for unlawfully appropriating 300,000 shares of stock.

#### BIG REEF COPPER CO.

ARIZONA

Office: Mayer, Ariz.

Officers: John Frank, pres.; A. C. Cole, v. p.; Dell Riggins, sec.-treas.

Inc. in Ariz. Cap., \$1,000,000; \$1 par; non-assessable; 519,997 shares in treasury.

**Property:** 19 claims; 380 acres, located 2¼ miles from Mayer, in Big Bug mining district, Yavapai Co., Ariz. The mines of the Cons. Ariz. Smelting Co. and Big Ledge Copper Co. are but a few miles distant. Claims cover an area of Yavapai schist traversed by a wide zone of silicification containing disseminated copper ore chiefly oxidized with segregations in quartz veinlets.

**Development:** about 300' of shallow work has been done to date and chalcopryrite ore reported shown in 60' shaft. Property favorably reported on, 1917, by J. H. Shockley, E. M., of New York.

Treasury issue of 50,000 shares offered the public, April, 1917, at 35c

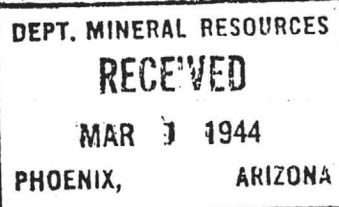
DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine HENRIETTA

Date Feb. 27, 1944

District Big Bug District of Yavapai County Engineer B. W. Brown

Subject: Copy of letter from W. W. Lytzen to Carl G. Barth, Jr. Re: Henrietta mi



3613 Queseda Street, N.W.  
Washington, D. C.  
March 10, 1938

Dear Mr. Barth:

I have your letter of March 2nd concerning the Henrietta and request for a report.

I regret that I do not have a report but you can find an up-to-date Long section of the workings in Lindgren's 1926 U.S.G.S. Bulletin No. 782. I helped the Doctor get information together when he was preparing this Bradshaw bulletin.

As you realize the upper several hundred feet of this pyritic vein was oxidized and enriched. A 20 stamp mill was fed by a go-devil incline from the upper tunnel and old shaft, collared on top of the hill. The lower ( Big Ledge ) tunnel did not expose any values until it reached the shoot that had been mined in the early period. A 600 foot shaft was sunk from this tunnel and the 1st 300 feet of dip was stoped for maybe 200 ft strike length. The 500 level dropped in value width, and length. The 100 ton table and flotation mill I built did not operate long before the Humboldt smelter was shut down.

A large sample obtained by popping the backs on the 150, 300 and 450, sacked and quartered outside was used for mill tests in Salt Lake. Assay of head for tests ran 3.2% Cu, 14% Fe, Insol. 60%, 0.2 oz Au and 2.7 oz. Ag. This was partially oxidized with incipient coatings of glance on pyrite. The pyrite was rather pale variety, though not As.

I imagine the claims, patented, reverted to Yavapai for taxes.

.....

Calkins, the E. M who used to live in Globe may give you some assay data from a shaft he sampled on top of hill towards the McCabe mine. This would be in unstoped area.

.....

Signed

W. W. Lytzen

*Copy made B. W. Brown - Field.*



## REBEL MINE

### Compiled Information

The Rebel Mine consists of two patented mining claims, the Rebel and Little Kicker, which end line the Gladstone and McCabe Mines and main vein on the south. These claims thus contain the southerly extension of this vein, which is strong throughout the length of the two claims.

The Gladstone and McCabe Mines were operated for many years around 1900 as a 'gold mine, and produced over \$2,000,000. As the vein extends south into the Little Kicker and Rebel the mineralization appears to become more basic-complex - a fact which greatly inhibited early day successful operation. Comparison between the Rebel and the McCabe is of little use except to show the general strength of the vein.

The Rebel Mine was rather extensively developed, and some production obtained around 1900. It has probably not been entered since about 1904. While there seems to be considerable knowledge among old timers as to what development was done and what it showed, and although this department has made extensive efforts to obtain actual first hand information, we have been unable to find anyone who was ever in the lower levels of the mine.

What makes the property of especial interest is that the evidence shown by the dump and some known shipments indicates that the stories regarding underground development are true, and if so, it would have been impossible to carry on a successful operation with the metallurgical knowledge available around 1900. In other words there are sensible reasons why the supposed conditions could really exist. Nowadays the ore would have a value around \$30.00 to \$40.00 per ton.

Dr. C. E. Culver of Philadelphia, the present owner of the mine, reports that there are four shafts on the property - one over 800 feet deep, and 2,000 feet of drifts, but no stoping; that the vein is 5 - 7 feet wide with a high grade band 2 - 4 feet wide in the middle (assaying \$40.00), and lower grade on each wall.

Arthur Bowen, a miner who was familiar with the mine some years ago, but says he has never been underground there, says he knows from general knowledge that the shaft is 900 feet deep with some little drifting and ore on every level.

J. E. Russell of Prescott says he was in the mine to the 200 level about 1907 and that the only ore on that level was a short shoot about 15 feet long which raked north through the shaft at about 45 degrees, at the 150 level. However, he says it was well known at that time that another shoot 400 feet long and raking to the north came in on the 400 level south. He says he shipped two carloads from the dump that assayed \$30.00 per ton and left another car there that someone stole later. This was at old metal prices.

In a letter to Arthur Bowen written in November, 1925, Russell, in quoting a man who knew the mine well, also says "below the 75 foot point the hanging is so hard there will be no further caving of ground .....to catch up that small cave near the surface will open the shaft except for water".

Quoting this same man, Russell mentions 300 tons being stoped in vicinity of the 165 level and sent to the Gold Standard (Val Verde) mill. That this was the "only ore ever stoped in the mine". In all probability this is the same small shoot as he mentioned having seen himself.

The Southwestern Engineering Co. made a metallurgical report for Dr. Culver in 1928 on a head sample which assayed: Au .24; Ag 12.0; Cu 3.24%; Pb 7.0%; Zn 12.3%. This sample was evidently taken from the dump and of course proves nothing as to the amount of such ore available underground. The differential flotation test was only fairly successful but the fresh ore should give no difficulties with modern practice.

The mill tailings dump near Humboldt below the smelter on the Agua Fria River, known as the Val Verde mill tailings, is supposed to have been produced entirely from Rebel ores. This dump contains about 2,000 tons. Thirteen carloads were hauled to Clarkdale by myself in 1941 and a typical analysis was as follows: Au .12; Ag 3.13; Cu .25; Zn 1.5; Fe 8.1; SiO 58.3 (not assayed for Pb). It is evident that in those days they made a bulk table concentrate and probably were badly soaked for the zinc, and received no payment for the lead, but could not afford to discard either because of the gold content. Assuming a lead content similar to zinc, and that extraction was around 66%, it would again indicate a head value around \$30.00.

Bill Snyder and an associate in 1937 erected a small bulk flotation plant at the mine dump and produced a few shipments of concentrates which averaged: Au .40; Ag 12.4; Pb 12.1; Zn 19.8; Fe 18.7; Ins 6.4. Ratio of concentration and head and tail assays are not known but Bill thinks they made a very low extraction about a 4 - 1 ratio.

Louis E. Reber, Jr. made a brief examination and report in 1934. Mr. Reber speaks fairly well of the property geologically but looked at it entirely from the point of view of a gold mine, and was not very enthusiastic about it as such. His samples were assayed for gold and silver only, and with the exception of dump samples were taken on the surface. The surface samples averaged around .10 in Au but the dump samples are interesting in showing types as follows:

	Au	Ag
Selected for pyrite	.28	6.80
Selected for arsenopyrite	.64	.25
Selected for sphalerite	.12	5.80
Selected for galena	.09	29.50

COPY

In September 1946 I visited the property and took a sample of the clean mixed ore from the dump which assayed as follows: Au .48; Ag 4.4; Cu .16; Pb 5.00; Zn 17.31.

My lower ratio of copper and higher ratio of zinc is probably due to the copper ore being well gleaned from the dump in times past. In fact, after several gleanings it has been through there is little ore of any kind left. I found the shaft caved at the surface but the funnel is not large, and it is reported that the water level is about 75 feet. It seems probable that the shaft would be found in accessible shape below the water level.

Three methods of approach are possible:

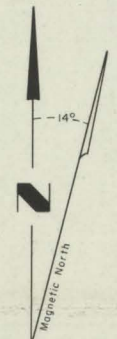
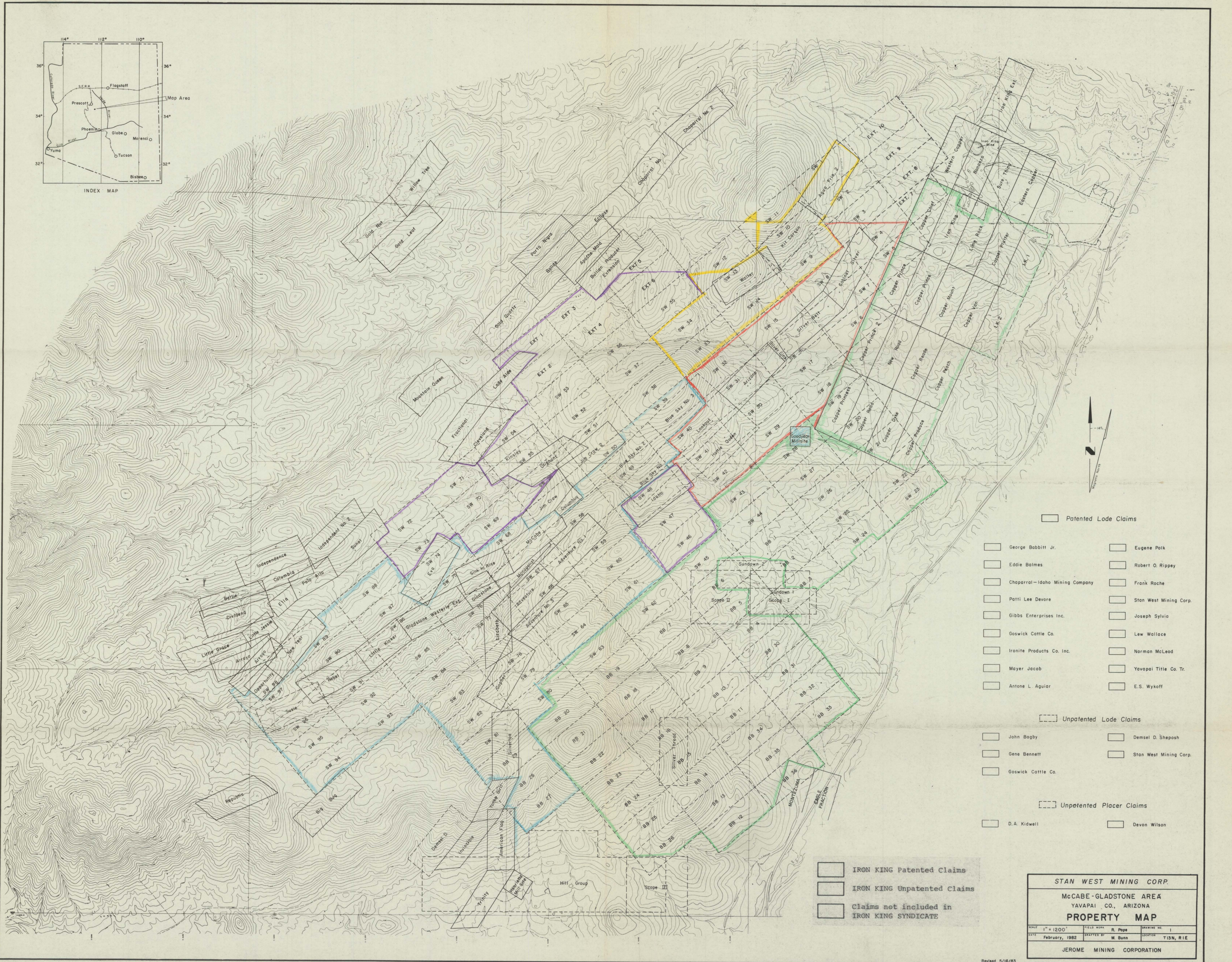
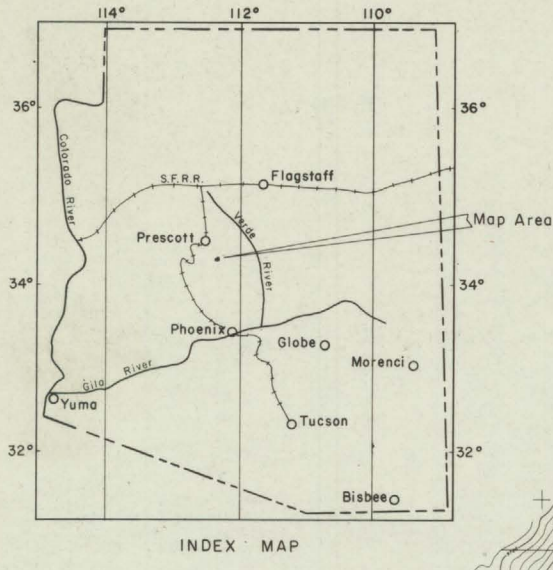
- 1) Open up the old shaft.
- 2) Put down a prospect shaft near the old shaft to some point below the water level and then drift to the shaft.
- 3) Run a tunnel to connect with the old shaft at about the 100 level.

The method which would be most economical would be a matter of engineering study and judgment. They are all possible and comparatively inexpensive.

Considering the evidence supporting the grade of this ore and the sensible reasons why it could be there; and also considering the reasonable "deal" that can be obtained, and the comparatively small cost of ~~opening~~ opening it up; it would seem a worthwhile venture to find out.

Compiled November 1946 by

Chas. H. Dunning, Director  
Department of Mineral Resources.



Patented Lode Claims

- |                                |                        |
|--------------------------------|------------------------|
| George Babbitt Jr.             | Eugene Paik            |
| Eddie Holmes                   | Robert O. Rippey       |
| Chaparral-Idaho Mining Company | Frank Roche            |
| Patti Lee Devore               | Stan West Mining Corp. |
| Gibbs Enterprises Inc.         | Joseph Sylvia          |
| Goswick Cattle Co.             | Lew Wallace            |
| Ironite Products Co. Inc.      | Norman McLeod          |
| Mayer Jacob                    | Yavapai Title Co. Tr.  |
| Antone L. Aguilar              | E.S. Wykoff            |

Unpatented Lode Claims

- |                    |                        |
|--------------------|------------------------|
| John Bagby         | Densel D. Sheposh      |
| Gene Bennett       | Stan West Mining Corp. |
| Goswick Cattle Co. |                        |

Unpatented Placer Claims

- |              |              |
|--------------|--------------|
| D.A. Kidwell | Devon Wilson |
|--------------|--------------|

- IRON KING Patented Claims
- IRON KING Unpatented Claims
- Claims not included in IRON KING SYNDICATE

**STAN WEST MINING CORP.**  
**MCCABE-GLADSTONE AREA**  
**YAVAPAI CO., ARIZONA**  
**PROPERTY MAP**

SCALE 1" = 1200'	FIELD WORK R. Pope	DRAWING NO. 1
DATE February, 1982	DRAWN BY M. Bunn	LOCATION T13N, R1E

JEROME MINING CORPORATION

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