



CONTACT INFORMATION

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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 06/20/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: PORTLAND

ALTERNATE NAMES:

MOHAVE COUNTY MILS NUMBER: 350A

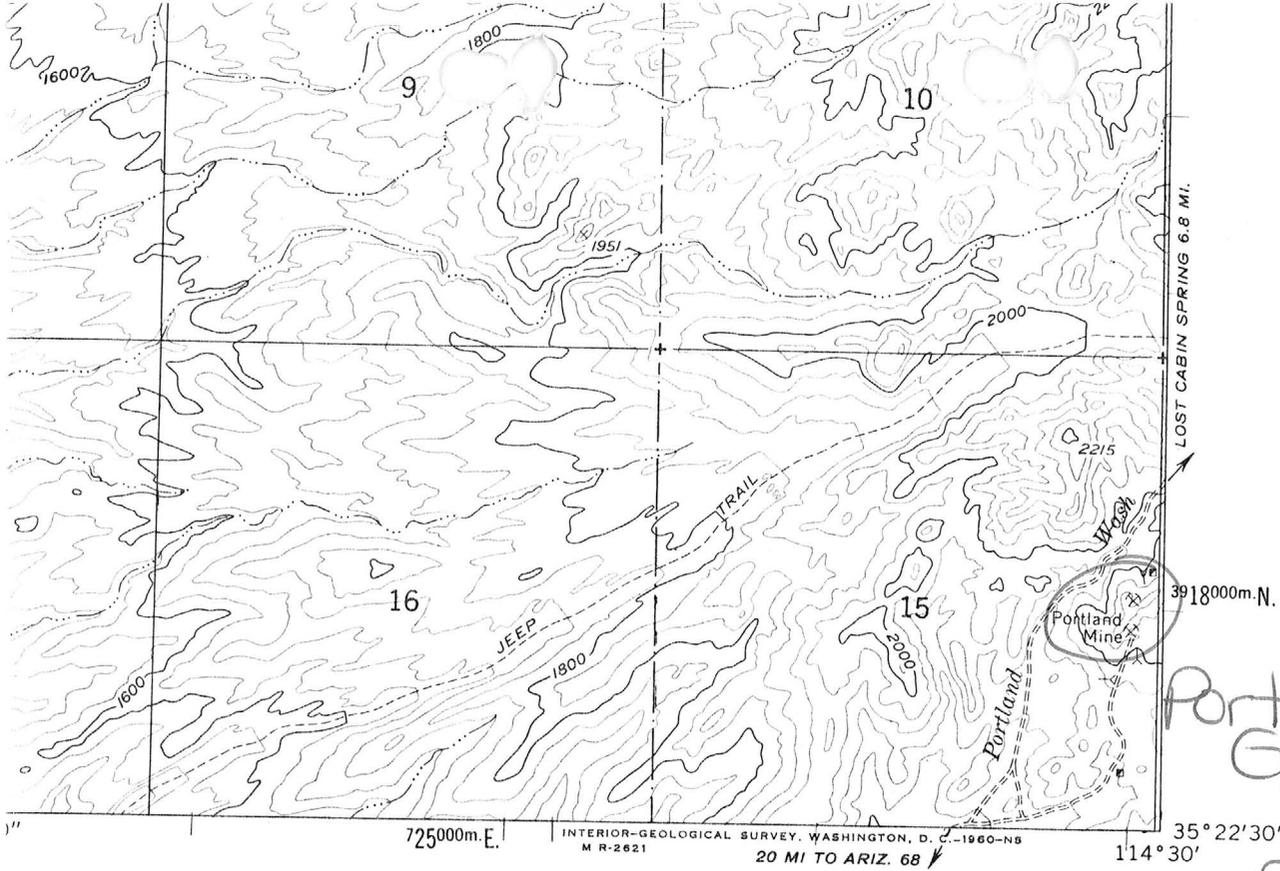
LOCATION: TOWNSHIP 23 N RANGE 21 W SECTION 15 QUARTER --
LATITUDE: N 35DEG 22MIN 51SEC LONGITUDE: W 114DEG 30MIN 04SEC
TOPO MAP NAME: SPIRIT MTN NE - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
GOLD LODE
SILVER

BIBLIOGRAPHY:

ADMMR PORTLAND MINE FILE
GARDNER, E.D. "GOLD MNG. & MLNG. IN BLCK MTNS
MOH. CO.,AZ" USBM IC 6901, P. 48; 1936
BLM AMC FILE 28157
SEE: ADMMR GOLD STANDARD MINE CORP FILE P. 3
LONGWELL, C.R. "RECONN. GEO. BETWEEN LAKE MEA
D & DAVIS DAM AZ-NV" USGS PP 374E P. 38&42
GREAT BASIN GEM JT VENTURE, VOL. 5 "BLCK MTN"



Portland Gold Mine

T23N R21W
Sec. 15 -

41-B

MO

INTERIOR-GEOLOGICAL SURVEY, WASHINGTON, D. C.—1960-NB
M R-2621
20 MI TO ARIZ. 68 ↘

ROAD CLASSIFICATION

Light-duty Unimproved dirt



QUADRANGLE LOCATION

SPIRIT MTN. NE, ARIZ.—NEV.

NE/4 SPIRIT MTN. 15' QUADRANGLE
N3522.5—W11430/7.5

1959

Name of Mine or Prospect:	Town	Range	Section	Priority
Portland Mine	23N	21W	15 add	A
Principal Minerals:	1:250,000 Quad		7.5' - 15' Quad	
Gold, Silver	Kingman		Spirit Mtn. NE	
Associated Minerals:	District		Principal Product	
Quartz, Calcite	Weaver		Gold, Silver	
Type of Operation:	County	State	Type of Deposit	
Underground: Shafts, Adits	Mohave	Ar.	Vein	

Ownership or Controlling Interest: Clark, Samuel and La Vonne; Potter, James A., c/o Bird Cage, 6750 Hawaii, Ka: Drive No. 1005, Honolulu, Hawaii 96825 (1979)⁵

Access: From the intersection of Cottonwood Road and U.S. 93 proceed on Cottonwood Rd. for 8.3 miles. Turn left on Lost Cabin Spring Road and travel 9.5 miles south. Mine is shown on topographic sheet.

Structural Control or Geological Association:

"The country rock, of that general area, consists of the Tertiary volcanic rocks, with rhyolite and green chlorite andesite most abundant. The main vein which strikes north, is a wide flat vein dipping about 35°SE and is 12-20 feet in thickness and 1200 feet long."¹

Altered Precambrian granitic basement was found in the footwall of the low-dipping fault/vein system at the Portland Mine. This system appears to be the northern extension of a low-angle fault zone exposed in T23N-R21W, Sections 23,24,25, and 26, Burns Spring 7.5' quadrangle.⁶

Age of Mineralization: Miocene

Production History

1935-1940¹ 132,000 ton @ \$7.22 gold per ton

Patented claims: Book #307
MS #43
Sunshine
Sunshine #2
Portland

Geochemical Analyses

Assay map 10/1935³

Assay⁴ (1936)
Ore sample 1-\$7.60 gold/ton
2-\$4.00 gold/ton
3-\$15.00 gold/ton

References

- 1) ADMR file, Phoenix, Ar. (consultants report).
- 2) Mallach (1977) p. 28.
- 3) CETA map file, Rack #12A and 12B, underground assay, ore reserve map.
- 4) Gardner (1936) p. 48.
- 5) Liggett (1979) field reconnaissance.
- 6) December 1981: Reconnaissance Survey of the Geology and Mineral deposits of the Black Mountains, Mohave County, Arizona; Proprietary report to Santa Fe Pacific Railroad Company.

Kingman Mining Project
4 Claim maps - 3 underground plan
maps

May 27, 1957

PORTLAND GOLD MINE

MOHAVE CO.

This property idle.

MARK GEMMILL

See P.P. 374-E - Reconnaissance Geology
Between Lake Mead and Davis Dam, Arizona-
Nevada - p.p. 38 & 42

~~MARK GEMMILL~~

106907 P. 48

PORTLAND GOLD MINE

Au

Mohave

8 - 7

T 23 N, R 21 W

J. A. Potter, Kingman

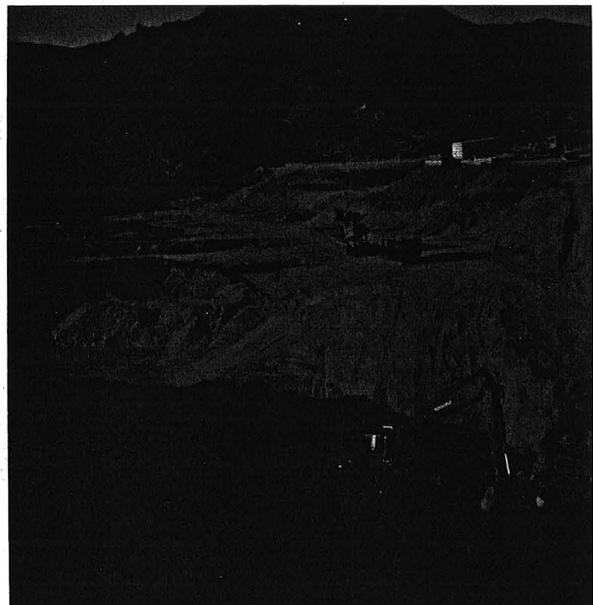
'44

PORTLAND MINE

Mils 350



Portland Mine 4/14/83



Portland Mine 4/14/83

Pictures taken April 14, 1983

Note to
File:
Original photos filed
in Photo Scan File
4-4-06
Juz







Jane Dee Hull
Governor

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.adeq.state.az.us



Jacqueline E. Schafer
Director

**NOTICE OF PRELIMINARY DECISION TO ISSUE AN AQUIFER PROTECTION
PERMIT FOR CLOSURE NUMBER P-100210**

**Public Notice No. 46-02APP published on Monday, August 26, 2002
in The Kingman Daily Miner**

Pursuant to Arizona Administrative Code, Title 18, Chapter 9, Article 1, the Director of the Arizona Department of Environmental Quality is issuing an Aquifer Protection Permit Number P-100210 for closure of the Portland Mine to the following applicant:

Western States Minerals Corp.
250 South Rock Blvd., Suite 118
Reno, Nevada 89502

file
made

The Portland Mine is located in Mohave County, Arizona, approximately 35 miles northwest of Kingman. The site is located over the groundwater of the Detrital Valley Basin, and occupies approximately 110 acres in Sections 14 and 15 of Township 23N, Range 21W of the Gila and Salt River Baseline and Meridian.

The Western States Minerals Corp. is authorized by Aquifer Protection Permit P-100210 to conduct closure activities related to 11 facilities at the inactive former mine site. These facilities include three leach piles, three waste rock dumps, two solution ponds, two septic systems, and a chemical storage pad. The closure activities will include the backfilling and regrading of the former solution ponds, and the construction of diversion ditches and berms to direct storm water runoff around the facilities.

With 24-hour notice, the permit and associated documents can be viewed at the Arizona Department of Environmental Quality, Records Management Center, 1110 West Washington Street, Phoenix, Arizona 85007. Please call 602-771-4378, to schedule an appointment to review the file.

Persons may submit comments on the proposed actions, in writing, within thirty (30) days from the date of this published notice. The written comments must be submitted to the ADEQ, 1110 West Washington Street, Phoenix, Arizona 85007, Attention: Jeff Emde.

Northern Regional Office
1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733



Jane Dee Hull
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.adeq.state.az.us



Jacqueline E. Schafer
Director

August 20, 2002

Mr. Edward M. Gerick
Western States Minerals Corporation
250 South Rock Blvd, Suite 118
Reno, Nevada 89502

RE: Intent to Issue an Aquifer Protection Permit Number, Portland Mine, 35 miles NW of Kingman, Mohave County, Arizona

Dear Mr. Gerick:

This letter is provided pursuant to Arizona Administrative Code R18-9-109.A.1., notifying you of the preliminary decision of the Arizona Department of Environmental Quality to issue an aquifer protection permit for the above referenced site.

The enclosed *Notice of the Preliminary Decision to Issue an Aquifer Protection Permit* will be published on or about August 26, 2002, in the Kingman Daily Miner, Kingman, Arizona. Written comments will be accepted for 30 days following the publication of the notice.

I have also enclosed a copy of the proposed permit for your reference. If you have any questions, please contact me at 602-771-4590, ext. 4590.

Sincerely,

Jeff Emde, Project Manager
Water Permits Section, Mining Unit

cc: Eric Wilson, ADEQ, without enclosures
David St. John, ADEQ NRO, without enclosures
Distribution List

MU02:0091 - Inventory Number 100210

PORTLAND MINE

MOHAVE COUNTY

NJN WR 1/17/86: Ed Huskinson (c) reported that Western State Minerals (c) has closed their Portland Mine (f) Mohave Co. operation for metallurgical review. They had been achieving unsatisfactory recovery from their gold ore and generally have been behind in their project schedule. Exploration prior to shutdown is reported to have identified a 80' thick zone averaging 1/3 oz/ton of au.

NJN WR 11/13/87: Mike Campbell, Process Supt. of Western States minerals Corp (card) reported that they quit mining during June at the Portland (file) Mohave County. They are still leaching the heaps and plan to continue recovering gold until June '88. They are continuing to do some exploration in the hope of finding some additional reserves. Their address has changed to: P O Box 6367, Kingman Arizona 86402. The phone remains the same at 753-1224. With the cessation of mining activity only 10 employees are needed for the leach activity. Rick Fiddler is now the mine superintendent.

NJN WR 6/17/88: Bill Vanderwall (card) reports that heap leaching continues at the Portland (file) Mohave County. Recovery is approaching 100% of anticipated results and currently totals in excess of 300 oz of gold per month. Leaching will probably continue until less than 200 per month is recovered. Western States has been drilling to try to locate reserves for their leaching operation there. Western States is currently trying to sell all of their Mohave County properties so they can concentrate on their activities in the northern part of the United States.

NJN WR 11/30/84: Joe Langloes, mining engineer with the State Dept. of Revenue, reported that Western States Minerals is constructing a semi-portable mill and shop buildings at the Portland Mine (file) Mohave County.

NJN WR 11/23/84: Pete Drobek reported he is now the geologist for Western States Minerals Corp. (c) at the Portland Mine (f) Mohave County. He will be drilling some of the alteration blossoms to find additional veins and ore reserves.

NJN WR 11/23/84: Western States is changing the recovery method at the Portland Mine to gravity concentration followed by an agitation cyanide leach.

NJN WR 5/24/85: Pete Drobeck reports that Western States Minerals has had a few start up problems at the Portland Mine (f) Mohave County but they hope to produce 6,000 oz. of gold this year. In 1986 they hope to produce 20,000 oz. Current reserves for the deposit are 42,000 oz. of gold.

NJN WR 5/24/85: Pete Drobeck reports that the operators of the Portland Mine (f) Mohave County, Western States Minerals (c) have a new address: 802 E. Beale, Kingman, Az. 86401, phone 753-3773.

KAP WR 7/19/85: Tony Aguiar (c) 2552 Katherine Court, El Cajon, California 92020, phone (619) 698-9010 requested information on the status of a number of old mines. He mentioned he still has a royalty interest in the Portland Mine (f), Mohave County. He was involved in finding a financial partner to get the property going.

RRB WR 7/26/85: Tony Aguirre of San Diego reports that he owns a piece of the Portland Joint Venture, Mohave County as his brokers commission.

MG WR 10/25/85: The Western States Minerals Corp. is apparently operating alone at the Portland mine (Mohave County). There is no joint venture partner at the present. Although there are some startup problems, the company is apparently committed to production. Most of the preproduction stripping is complete. Plans call for high grade ore to be treated in a cyanide mill and the low grade to be put on a leach pad.

PORTLAND MINE

MOHAVE COUNTY

NJN WR 8/19/83: Joe Bardswich of Jorniex visited and reported that they are crushing to $\frac{1}{2}$ " at the Portland Mine, Mohave County, in an attempt to increase their gold recovery.

NJN WR 1/20/84: Joe Bardswich with Jorniex Mining (c) visited and reported that operations continue at the Portland Mine, Mohave County. He admitted some more mistakes have been made which made November a tough month (some very low grade was put on heap which hurt recovery) but that recovery is now up to near 70% in 90 days. He also reported that Jorniex has established some good wells on the property and no longer hauls any water from the Colorado River.

NJN WR 1/20/84: Joe Bardswich of Jorniex Exploration and Mining Inc, P.O. Box 6283, Kingman, AZ 86401, Ph: 753-1965, reported that Jorniex was interested in offers from Potential investors interested in an operating gold mine (Portland, Mohave County) or Jorniex's other activities in Mohave County.

NJN WR 2/17/84: Joe Bardswich of Jorniex Mining, reported a probable-possible 700,000 tons of .05 - .07 oz Au/ton based on 1 drill hole at the Portland Mine, Mohave County.

NJN WR 4/6/84: Chuck Bentzen (c) reported that the Portland Mine Mohave County has shut down.

NJN WR 5/4/84: Chuck Bentzen (c) reported that Jorniex Mining Inc. has found a financial partner in Minnesota and will be resuming operations at the Portland Mine (file) Mohave County.

RRB WR 7/20/84: It was reported that the Portland Mine, Mohave County was being reactivated by Western States Minerals which has acquired an interest in the property.

PORTLAND MINE

MOHAVE COUNTY

RRB WR 4/1/83: Stewart Winter, Jorinex Exploration and Mining (Canadian Company) P.O. Box 6283, Kingman, Arizona 86401, was in to look at file of Portland Gold Mine, Minnesota-Weaver District, Mohave County. He also checked the files on the Golden Door and Klondyke in the vicinity. Mr. Winter said that they planned a small test leach pad.

RRB WR 5/13/83: Joe Bardswich of Jorinex reports that the operation at the Portland is doing great except that they are having trouble getting the gold out of the carbon. They have an HBS system and he wanted to find someone operating one or familiar with it. In lieu of that he took the address of Heinen and Liningston, formerly with the Bureau of Mines and now doing consulting work. He said that the pregnant was running at 1,24 oz/ton and the carbon assayed 187 oz/ton.

NJN WR 6/24/83: Joe Bardswich, an engineer with ROK Engineering, 560 Notre Dame Avenue, Sudbury, Ontario Canada P3C 5L2, Phone (705) 673-2838 (local address on file under Jorinex) called and reported that at the Portland Mine, Mohave County, they were unable to get enough water from their wells and the old shaft to keep operating. Knowing that the Colorado River was flooding they had asked the Bureau of Reclamation for permission to temporarily take water from it. They received verbal permission and had been hauling water for two days when the Lake Mead National Recreation Area Park officials stopped them from hauling for using a wash which was not an official road. Furthermore, the park officials said the local Bureau of Reclamation office did not have the authority to give them water, and so would not let them haul on designated roads. Mr. Bardswich was looking for suggestions on who to contact to resolve this problem or find other sources of water. It was suggested that he contact the Secretary of Interior's Office and some of the local representatives offices for help. It was also suggested that if this failed, he might be able to get water from Duval's closed Mineral Park mine.

Mr. Bardswich also reported that the recovery on the pilot heaps has only been about 38% on minus 2" material. He believes they will have to crush to ½" to get a recovery of 50% which is about what they need to make the operation economical.

NJN WR 7/22/83: Perry Durning reported that Jorinex is getting 50,000 gallons per day from the Colorado River for their operation at the Portland Mine, Mohave County. Jorinex has received a new crushing and screening plant which will enable them to crush their ore to less than an inch. This is smaller than Jorinex crushed the ore for their first pilot heap.

However Herb Lewis of El Paso Natural Gas has been investigating the old Portland Au mine 15 miles west of Chloride. GW WR 5-2-73

Mr. Dick Ranie, Wickiup, came in for information on the Chico Mine (Jamison) south ~~of~~ of Chloride and the Portland and Tyro mines north of Katherine. All the available information was presented. GW WR 6-11-73

Jim Kelly, Getty Oil Co., Salt Lake City, said a Canadian company is doing some work at the Portland Au mine 10 miles west of Chloride. GW WR 5/13/75

Went to Chloride where Pat Patterson said there had been no activity in the district other than a Canadian company had cored several (?) holes at the old Portland Au mine 10 miles west. GW WR 8/26/75

KAP WR 1/16/81: Perry Durning, 114 Tucker, Suite #2, Kingman, Arizona 86901, reported that Fischer-Watt is drilling the Portland Mine, Minnesota Mining District, Mohave County. (Author's note: Possibly the Portland in the Music Mountain District, Mohave County but I doubt it.)

NJN WR 1/8/82: It was reported that Chester Millar is drilling, sampling and running a test leach at the Portland Gold Mine, Minnesota Mining District, Mohave County. He has apparently leased the property from Fischer-Watt.

NJN WR 7/30/82: Pete Fernberg, Geologist with CanGold, P.O. Box 1139, Saskatoon, Saskatchewan S7K 3N2 reported that Fischer-Watt is dropping their option on the Portland Mine, Mohave County August 15. CanGold is going to take a look at the property. They believe it has the potential to produce 750,000 tons of .05 Au/ton. That would be recoverable by leaching at 3/8" minus.

NJN WR 3/11/83: L. J. "Joe" Bardswich, with ROK Engineering and Construction 560 Notre Dame Ave., Sudbury Ontario P36-5L2, phone 705-673-2838 visited. ROK owns 50% of Jorniex Exploration and Mining. Jorniex has optioned the Portland Mine, Mohave County, from Tony Aguire. Mr. Bardswich provided a copy of an underground assay map of the Portland Mine for our files. In the area of the 90' shaft they believe they can open pit mine 100,000 tons which will grade .10 Au/ton. Their plans include setting up a pilot heap to be followed by a full scale operation. One hole has been drilled by them on the property. Values were reported to range from .04 - .5 oz. Au/ton.

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Mine file: 1. BLACK DYKE 2. PORTLAND

2. Mine name if different from above:

3. County: Mohave

4. Information from: Charlie Dalrymple

Company: Western States Minerals

Address: 4975 Van Gordon

Wheatridge, CO 80033

Phone: 303-425-7042

5. Summary of information received, comments, etc.:

Mr. Dalrymple reports Western States Minerals attitude towards Montana has cooled slightly and they have now decided to keep their Mohave County properties and increase their interest in the rest of Arizona. They are retaining the Black Dyke and are seeking to add to the 250,000 ton reserve identified there. The company would be interested in receiving submittals on other Arizona precious metal properties (place on 2 buy list, remove from 4 sale list). Western States produced over 30,000 ounces of gold from their leaching at the Portland Mine.

Date: November 7, 1988

Nyal J. Niemuth, Mining Engineer

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Mine file: PORTLAND
2. Mine name if different from above:
3. County: Mohave
4. Information from: Mine Superintendent

Company: Western States Minerals

Address: P.O. Box 6367

Kingman, AZ 86402

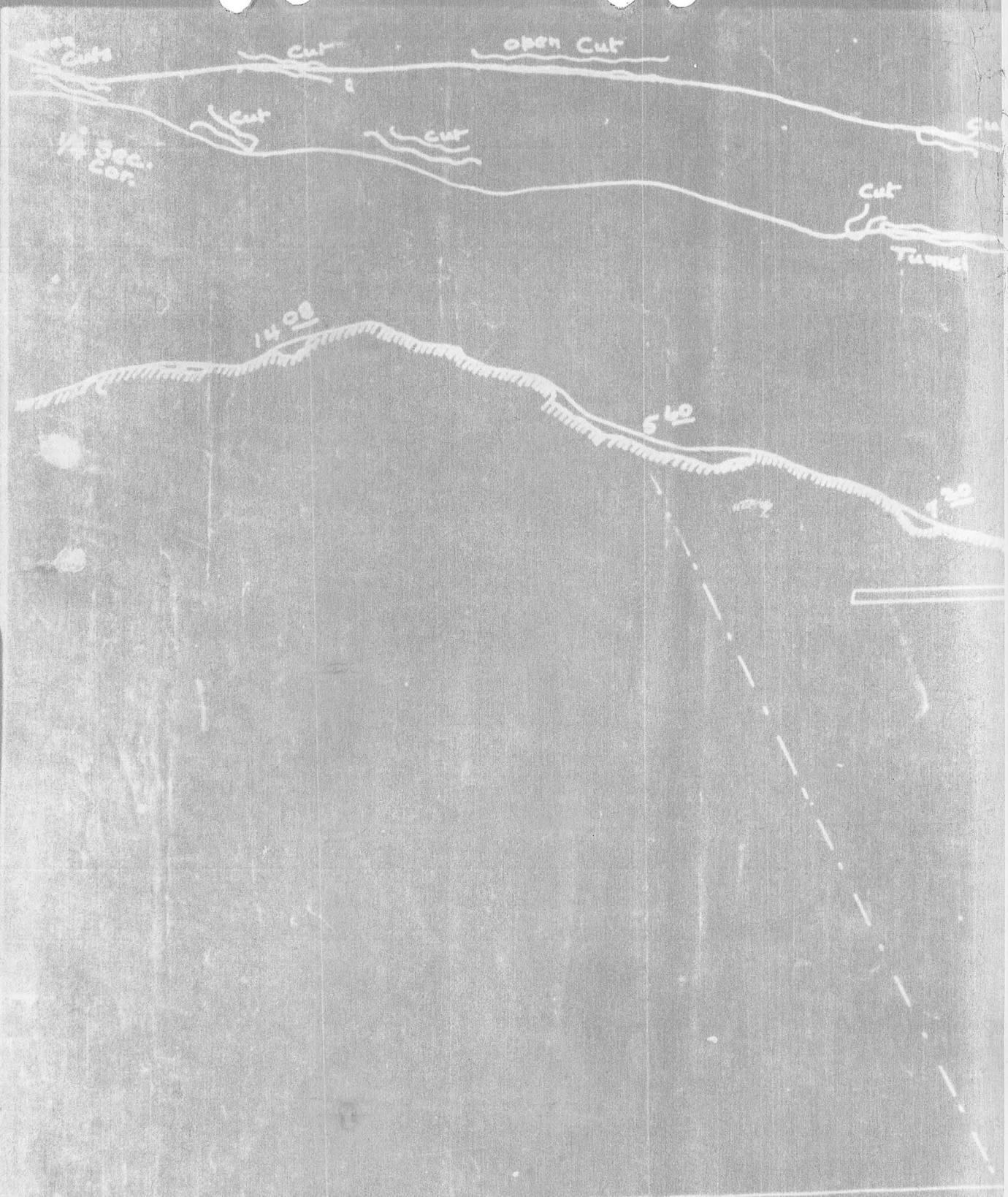
Phone: 753-1224

5. Summary of information received, comments, etc.:

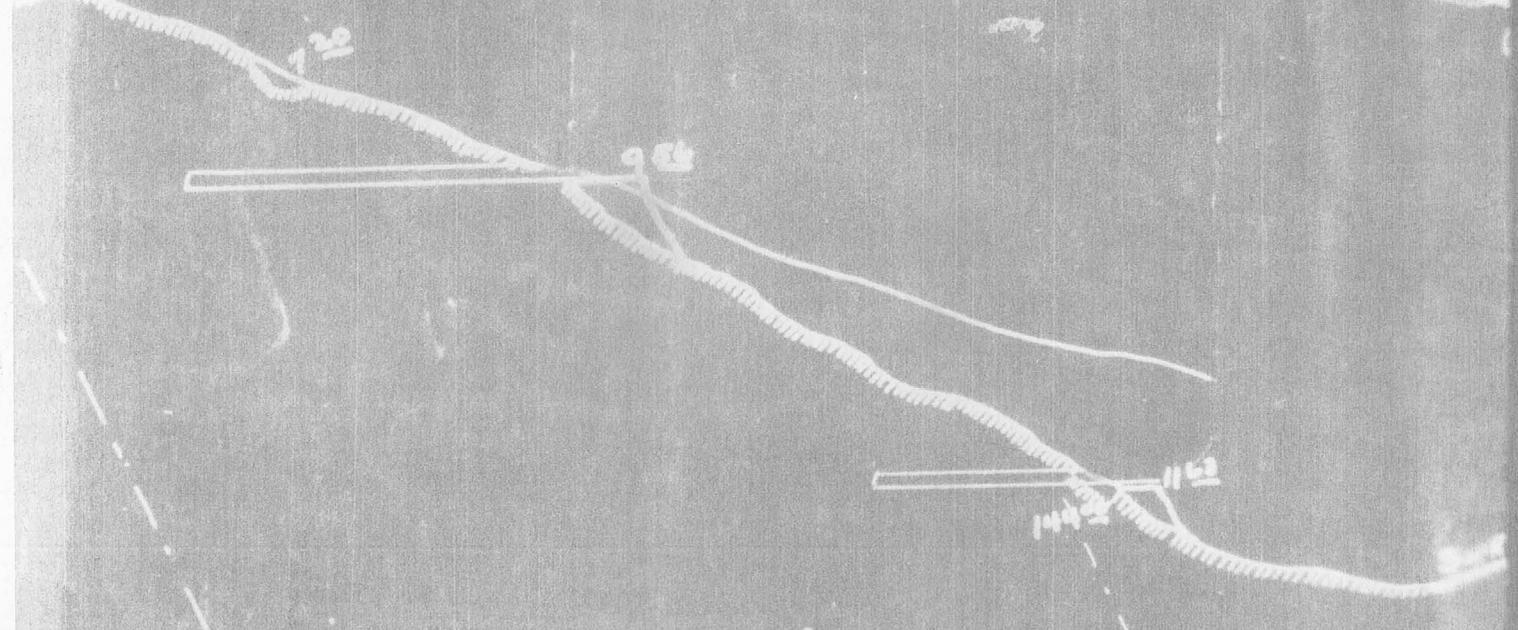
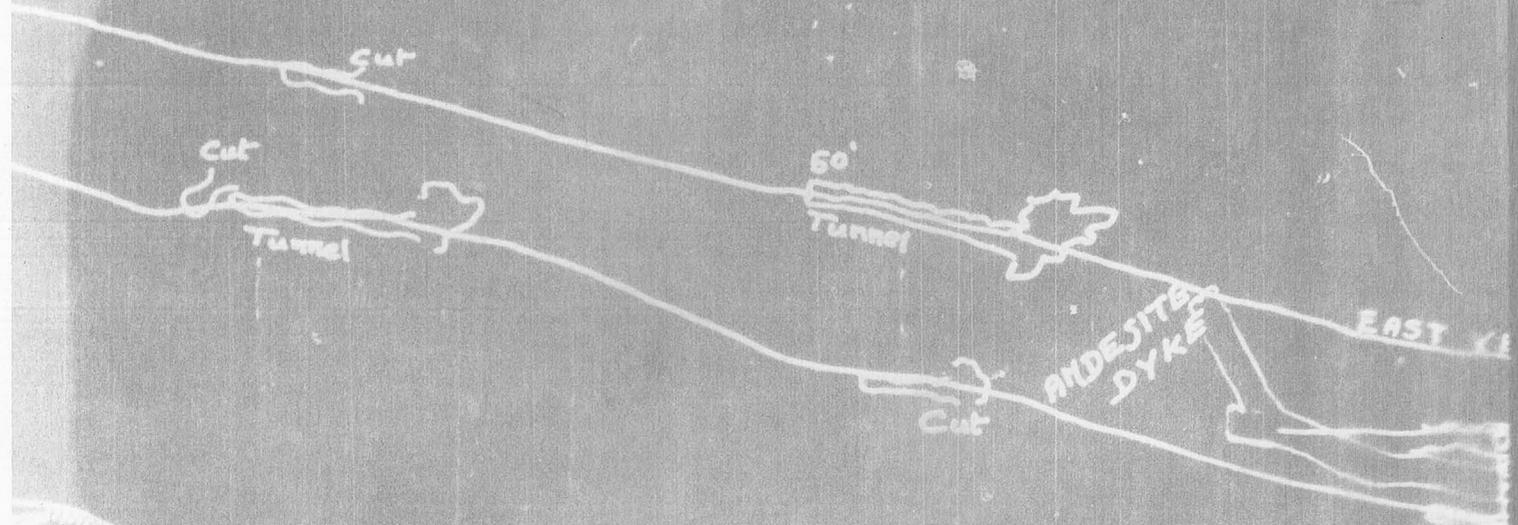
Production of gold has ceased at the Portland Mine. Mining has not taken place for some time but as of the end of September cyanide leaching of the heaps stopped. The property now is in a close down and reclamation phase. Exploration efforts to locate additional ore have been unsuccessful.

Date: October 20, 1988

Nyal J. Niemuth, Mining Engineer

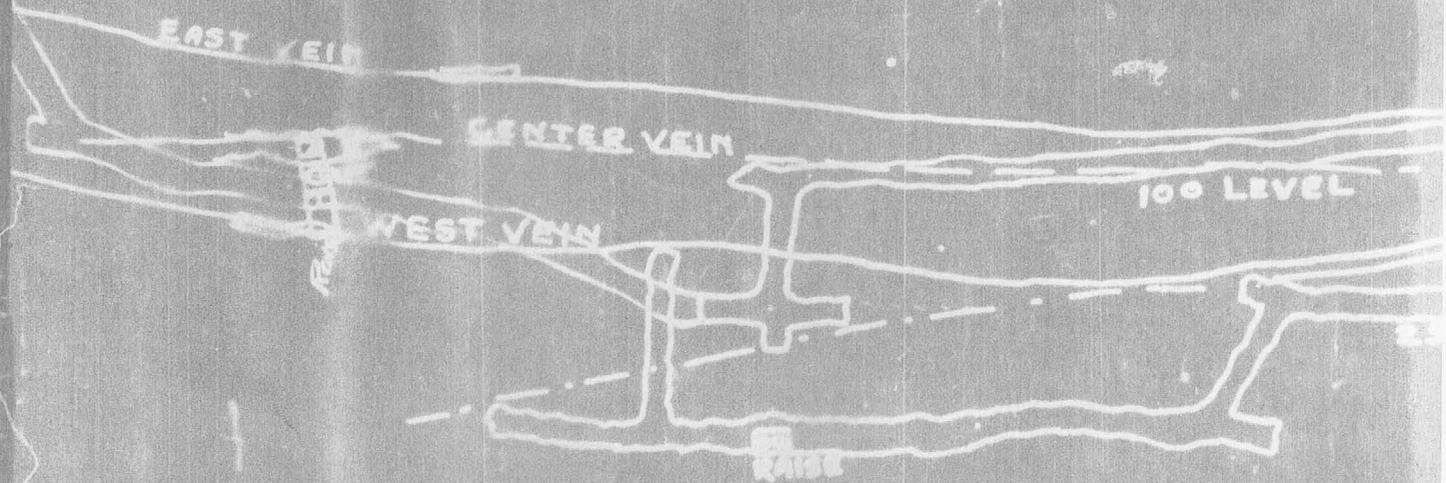


MAP



POSSIBLE ORE 15.0

File
July 11 1930



PLAN
OF SURFACE AND
UNDERGROUND WORKINGS

BLOCK No 3

7,000 TONS
AVERAGE VALUE
\$15.70
2 1/2 FT. WIDE

ORE BLOCK A

5,552 TONS
AVERAGE VALUE
\$10.77
WIDTH 2 FT.

152.1
62.2
10.2

BLOCK
 15 TONS
 75
 width

10.3
 8.10
 6.20
 2.25

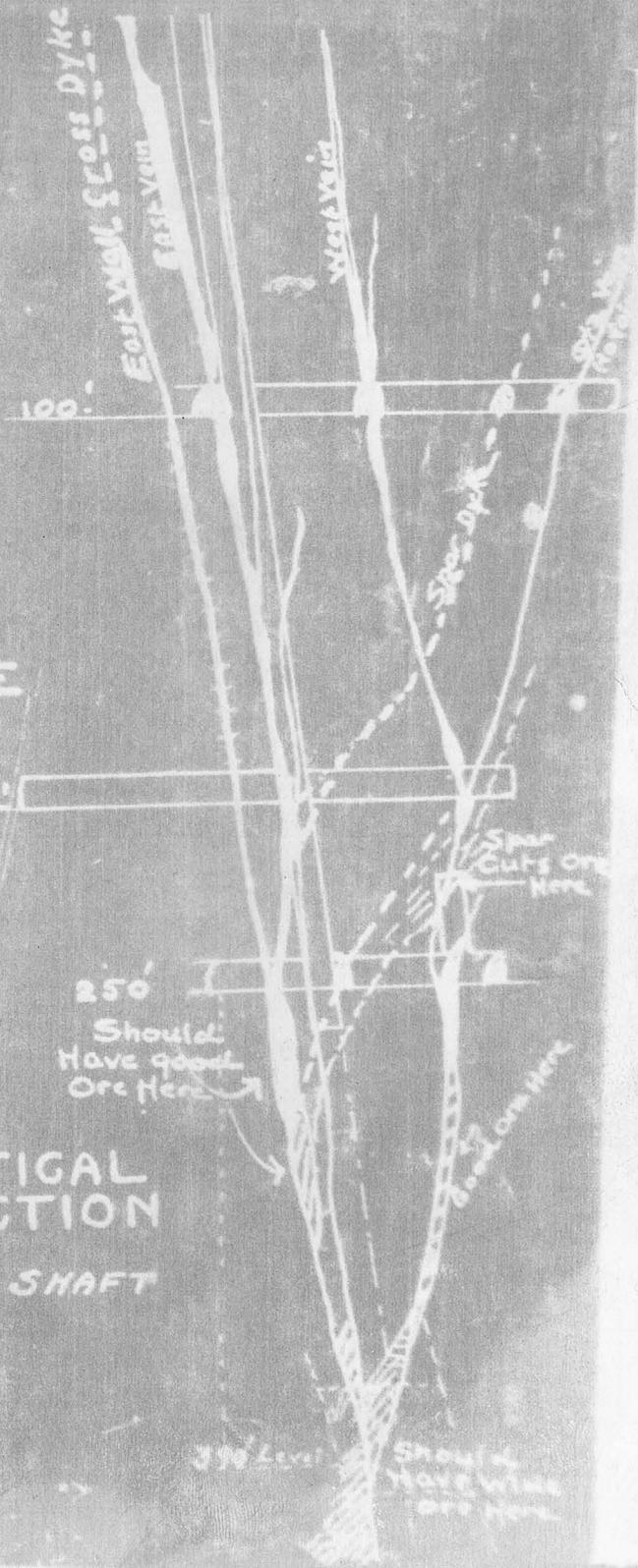
12.17
 11.17
 4.14
 3.78

PROBABLE ORE
 BLOCK N^o 1
 1500 TONS

274-7-6"
 2100-10-12"
 1175-15"
 540-4"

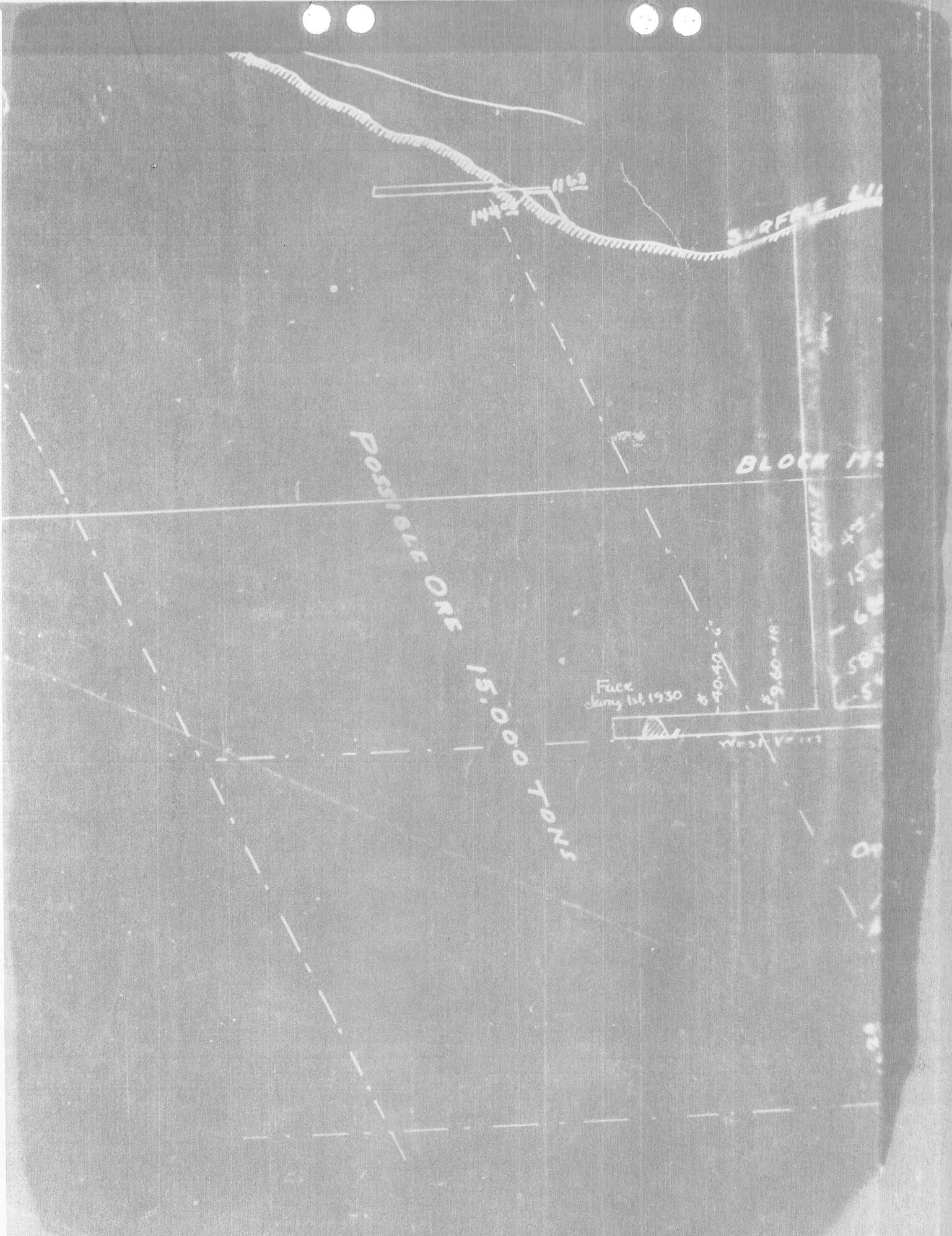
23-20-1' west dip
 Average 5 degrees 100.70 width 112'

PROBABLE ORE BLOCK 2
 5600 TONS



VERTICAL
 SECTION
 THRU SHAFT

300 Level
 Should have some Ore Here



MAP
SHOWING PLAN and SECTIONS
OF THE
ROSEBUD MINE
PORTLAND³ MIZPAH MINING CO.
MUSIC MOUNTAIN DISTRICT
MOHAVE COUNTY
ARIZONA

SCALE 1 in. = 40 FT.

MAY 1928

R. S. JOHNSON Mining Engineer
Kingman Ariz.

Kingman Mining Project
4 claim maps - 3 underground plan
maps

May 27, 1957

PORTLAND GOLD MINE

MOHAVE CO.

This property idle.

MARK GEMMILL

See P.P. 374-E - Reconnaissance Geology
Between Lake Mead and Davis Dam, Arizona-
Nevada - p.p. 38 & 42

~~MARK GEMMILL~~

106907 p. 48

PORTLAND GOLD MINE

Au

Mohave

8 - 7

T 23 N, R 21 W

J. A. Potter, Kingman

'44

F102

EI. 945

ROAD

EI. 1004

EI. 986

EI. 985'

"SOUTH TUNNEL"
OREBODY

EI. 97

H58-0.058

H57-
0.058

H56-0.05

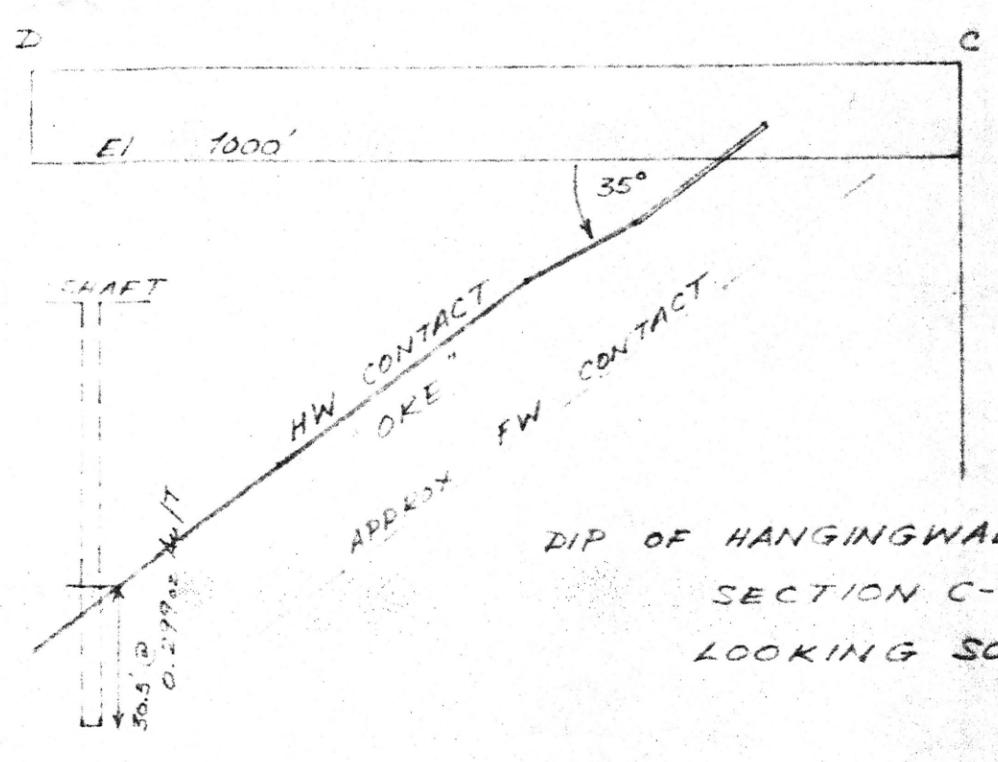
PRODUCTION - 1935-1939 : 132,000 T. @ 0.225 oz Au/T.

1935: 516 T @ 0.341 oz Au/T.
1.22 oz Ag/T.

TONNAGE ESTIMATES -

- 1937 C M BECKER ME.
287,000 T. @ 0.189 oz Au/T.
- 1975 SODKOCHEFF
300,000 T @ 0.201 oz Au/T.
- 1981 DURNING
131,000 T. @ 0.095 oz Au/T.
OR 318,400 T. @ 0.098 oz Au/T.
OR 748,400 T @ 0.057 oz Au/T.

H46-0.20



DIP OF HANGINGWALL CONTACT
SECTION C-D
LOOKING SOUTH



OF HANGING WALL CONTACT
 SECTION C-D
 LOOKING SOUTH



LEGEND

DRIFT OUTLINES

OPEN PIT OUTLINES

SAMPLE #10 AND H42 0.13 (FROM HOUSEHOLE)
 VALUES - CZ Au/T W1 - 0.23 (TAKEN BY S WALL)
 HANGINGWALL ELEVATION 934'



1000'

E1 1050'

1000'



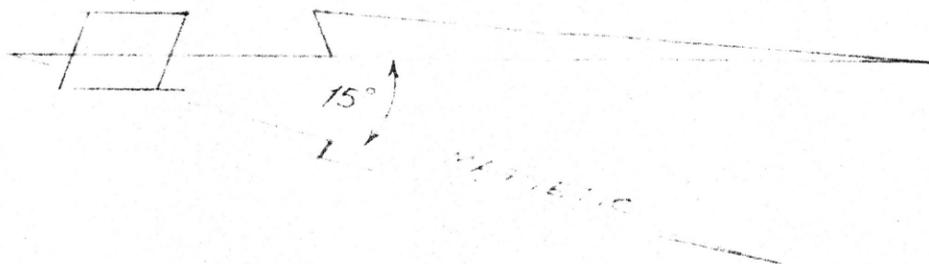
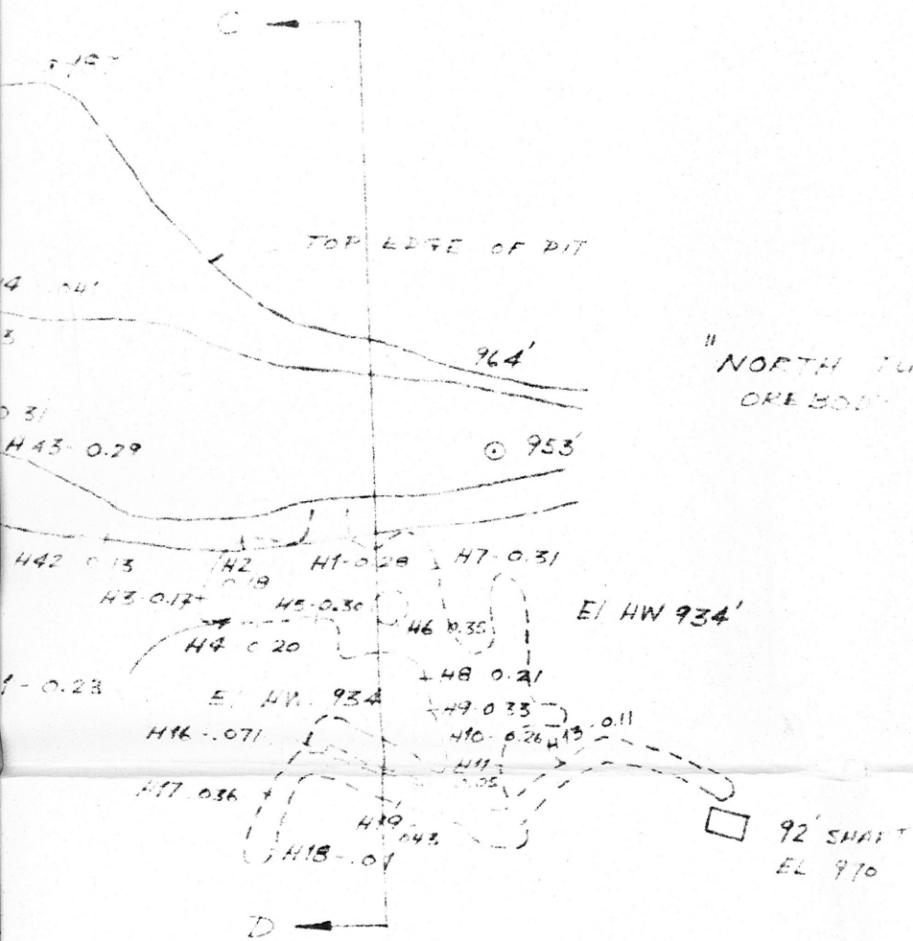
DIP OF HANGINGWALL CONTACT
 SECTION A-B
 LOOKING SOUTH

SCALE:

PO.
 NE

AFTER

SECT.
 GILA



PORTLAND MINE PROPERTY
 WEAVER MINING DISTRICT
 MOHAVE CTY, ARIZONA

ALTER MAP BY E. P. HOUSEHOLDER, M.E.
 KINGMAN, ARIZONA, 1950

SECTIONS 14-15, T23N, R21W
 GILA & SALT RIVER BASE & MERIDIAN

SCALE: 1" = 40 FT

S WINTER

PORTLAND 41
K
M
C

ARIZONA DEPARTMENT OF HEALTH SERVICES

Evan Mecham, Governor
Ted Williams, Director

NOTICE OF INTENT TO (ISSUE) (A)
GROUNDWATER QUALITY PROTECTION PERMIT(S)

Pursuant to Arizona Compilation of Rules and Regulations, Title 9, Chapter 20, Article 2 the Director of the Arizona Department of Health Services intends to (issue) (a) Groundwater Quality Protection Permit(s) to the following applicant(s), subject to certain special and general conditions.

Public Notice No.107-86AZGW

February 9,1986

James Belegante
Post Office Box 399
Bullhead City, Arizona 86440
Groundwater Quality Protection Permit No. G-0025-08

The permittee shall be authorized to operate a nondischarge hydrometallurgical precious metal recovery facility utilizing the cyanide heap leaching method. The facility is located 35 miles Northwest of Kingman, Arizona (T 23 N, R 21 W, SEC 15 SE 1/4 SE 1/4 NE 1/4). The Proposed Groundwater Quality Protection Permit (GQWPP) shall regulate the containment of cyanide leach solution to be used in the operation of the heap leach facility. The ponds (pregnant and barren) which contain cyanide solution shall be lined; first with a geotextile fabric, then with hypalon (u.v. resistant) to make an impermeable layer. The heap ore pad shall have a leak detection and collection system underneath the liner to be monitored for the presence of liner leakage. The facility shall monitor all leach solutions daily in the form of a water balance record and monitor leak detection collection system weekly for liner leakage. On-site are four water wells which are to be used for operational water demands and serve as groundwater monitoring wells, to be monitored monthly for presence of leach solutions constituents. Groundwater is at a depth of approximately 150 to 300 feet below land surface.

? EVAP
RAIN

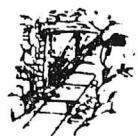
The permit (application)(Notice of Disposal) is available for public review Monday through Friday, 8:00 a.m to 5:00p.m. at ADHS, Environmental Health Services, Water Permits Unit, 2005 North Central Avenue, Phoenix, Arizona 85004.

Persons may submit comments or request a public hearing on the proposed action, in writing, to ADHS at the above address within thirty (30) days from the date of this notice. Public hearing request must include the reason for such request.

RECEIVED
FEB 10 1987

The Department of Health Services is An Equal Opportunity Affirmative Action Employer

Dave



PORTLAND MINE
CARO ON COMPANY - SEE
NEXT PAGE DO BOTH
LOCAL + COL. ADDRESS

Office of State Mine Inspector

705 West Wing, Capitol Building
Phoenix, Arizona 85007
602-255-5971

STATE MINE INSPECTOR

AUG 27 1984

NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with Arizona Revised Statute Section 27-303*, we are submitting this written notice to the Arizona State Mine Inspector (705 West Wing, Capitol Building, Phoenix, Arizona 85007) of our intent to start stop (please circle one) a mining operation.

COMPANY NAME WESTERN STATES (MINERAL CORPORATION) (PORTLAND JOINT VENTURE)

CHIEF OFFICER Bob Wallin - Mine Superintendent

COMPANY ADDRESS 4305 Stockton Hill Rd., Kingman, Arizona 86401

COMPANY TELEPHONE NUMBER (602) 757-2184

MINE OR PLANT NAME Western States Portland Joint Venture

MINE OR PLANT LOCATION (including county and nearest town, as well as directions for locating by vehicle)

Mohave County, Approx. 40 miles NW of Kingman, AZ. Access to the mine is via highway 93 North from Kingman to Cottonwood Road, then left (west) about 9.4 miles to a road going left (south), then about 9 miles to the mine site.

TYPE OF OPERATION Open Pit PRINCIPAL PRODUCT Gold

STARTING DATE September 15, 1984 CLOSING DATE March 1986

DURATION OF OPERATION 19 months

PERSON SENDING THIS NOTICE Stephen Thomas

TITLE OF PERSON SENDING THIS NOTICE Project Manager

DATE NOTICE SENT TO STATE MINE INSPECTOR August 24, 1984

*A.R.S. Section 27-303 NOTIFICATION TO INSPECTOR OF BEGINNING OR SUSPENDING OPERATIONS: When mining operations are commenced in any mine or when operations therein are permanently suspended, the operator shall give written notice to the inspector at his office prior to commencement or suspension of operations.

PORTLAND MINE

Western States Minerals Corporation

4975 Van Gordon Street
Wheat Ridge, Colorado 80033
(303) 425-7042

STATE MINE INSPECTOR

AUG 27 1984

August 24, 1984

Office of State Mine Inspector
705 West Wing, Capitol Building
Phoenix, Arizona 85007

Gentlemen:

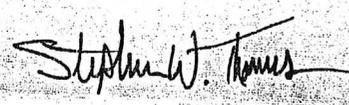
Please find enclosed a completed notice of intent to operate for the Western States Portland Joint Venture. Western States Minerals Corporation has taken over the operating responsibility for the Portland Mine near Kingman, Arizona from Jorinex Exploration and Mining, Inc. and plans to resume operations sometime in September 1984.

We intend to develop a good working relationship with the State Mine Inspectors Office and to operate the property in a safe and competent manner.

If you have any questions concerning our operation please contact either myself at (303) 425-7042 or Mr. Bob Wallin-Mine Superintendent at (602) 757-2184.

Very truly yours,

WESTERN STATES MINERALS CORPORATION



Stephen W. Thomas
Project Manager

SWT:kp

Enclosure

cc: Bob Wallin - WSMC

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Portland

Date 10-3-86

District

Engineer Nyal J. Niemuth

Subject: Operation Summary

The following information was obtained from Jim Bellagante - Mine Superintendent. The first section was obtained for use in updating our active mine Portland mine listing.

DISCLOSURE

Western States Minerals Corp., P.O. Box 399, Bullhead City, AZ 85430 Phone (602) 753-1224. Open pit gold mine - Heap leach operation. 52 employees

Personnel: Jim Bellagante - Mine Superintendent
Rick Fedler - Process Superintendent
Kraig Grubach - Mine Engineer
Bruce Vermilea - Office Manager

Mr. Bellagante reported that the mine was closed for 6 months starting December 1985. During this time metallurgical tests were conducted to determine why the milling circuit (C.I.P.) was unsuccessful and if the mine should be reopened. The decision was made to reopen the mine July 7, 1986, but only operate the heap leach. Ore is crushed to minus half inch and put in 20' heaps.

Mr. Bellagante provided me with a brief tour of the mining and heap leach operation. However, no grade, tonnage, recovery, or production figures were given as Western States views those numbers as proprietary. No photos accompany this, as cameras were not allowed on the property. Information provided indicated that enough ore would be mined to deepen the pit another 90' and continue heap leaching until the summer of 87. The tour did not enter the open pit.

Equipment and facilities on sight seen consisted of:

- 3 - Mobile "home" trailers serving as offices and change rooms.
- 2 - metal shop and warehouse buildings with dimensions of at least 50' X 100'
- 4 - 50 ton or larger haul trucks
- miscellaneous mining equipment including 3 loaders, blast hole drills, water trucks, bulldozers etc.
- 3 stage crushing plant - 1 jaw and 2 cyclone crushers
- CIP plant - not in use now plus misc. conveyors
- 2 - leach pads one being leached, the other being loaded.
- 20' lifts. Plans are to come back and stack another lift on each

Attached to this report is a sketch map showing the approximate location of facilities.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

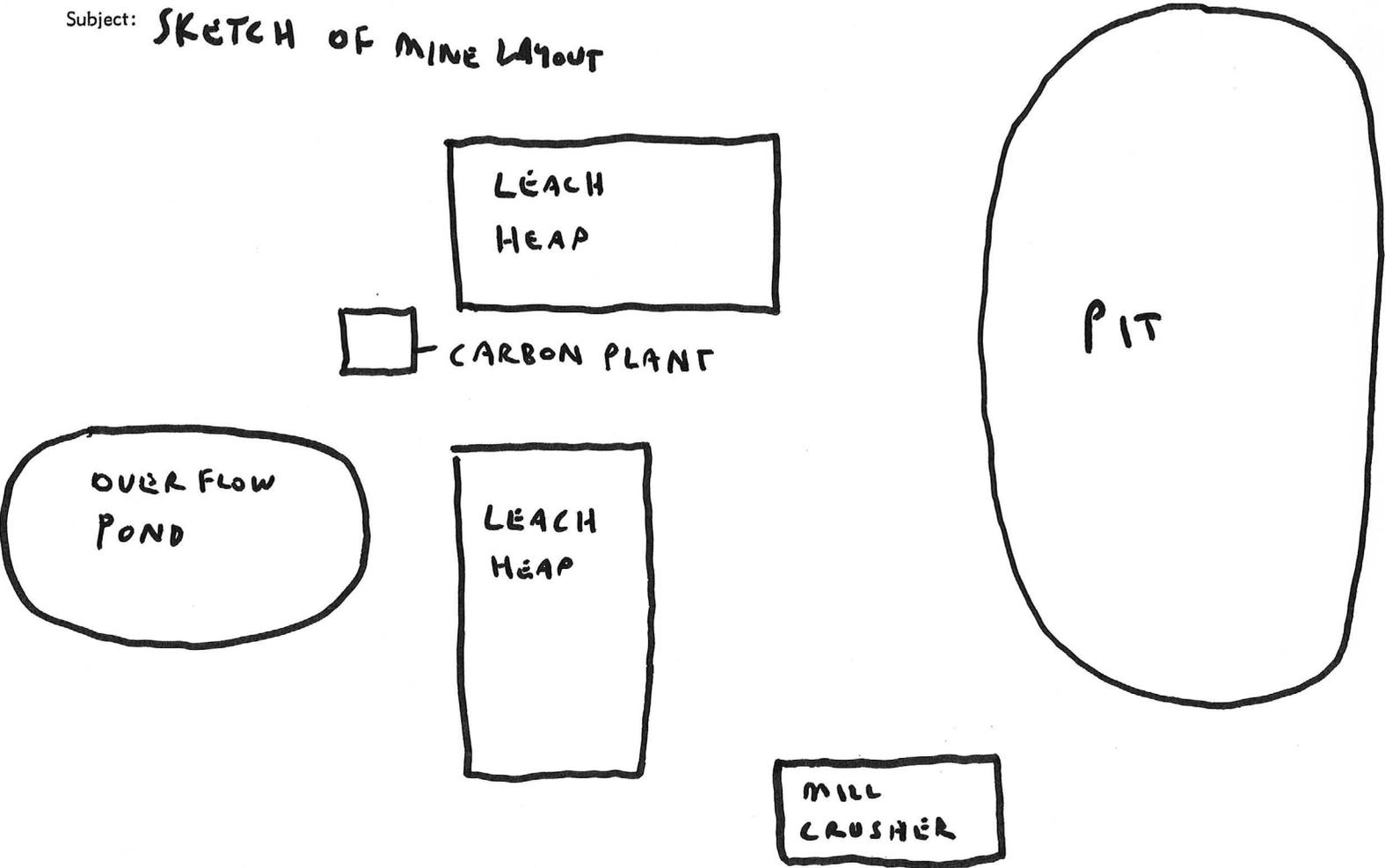
Mine **PORTLAND**

Date **10-3-86**

District

Engineer **NYAL NIEMUTH**

Subject: **SKETCH OF MINE LAYOUT**



NOT TO SCALE

MINE AND PROSPECT FIELD VISIT DATA SUMMARY

Sheet 1 of 2

COMMODITIES Gold, SilverMILS ID No. 350A Date 4/14/83ENGINEER Nyal J. Niemuth, Richard R. BeardINFORMATION FROM: Joe Bardswich

PROPERTY SUMMARY

I. MINE NAME Portland Mine OTHER POSSIBLE NAMES
INCLUDING ANY CLAIM NAMES NOTEDII. LOCATION: T 23N R 21W SEC(S) 15 MINE DISTRICT
ELEV. 2,000' COUNTY Mohave TOPO QUAD. Spirit Mtn. NE 7½"
DIRECTIONS As on topoMAP ATTACHED NoIII. OWNERSHIP: NAME Sam Clark PHONE 714/632-1979
ADDRESS: 3955 Maple Tree Drive, Anaheim, CA 92807Operating COMPANY NAME IF ANY: Jornix Exploration, P.O. Box 6283, Kingman, AZ 86401
PERTINENT PEOPLE Joe Bardswich, Mining Engineer; Stewart Winter, GeologistIV. PROPERTY AND HOLDINGS: 3 Patented Mining ClaimsV. PAST PRODUCTION - NOTED, KNOWN, PROBABLE, UNKNOWN, NONE NotedVI. CURRENT STATUS: 15,000 ton open cut and pilot leach underwayVII. WORKINGS: New workings consist of the North Pit where overburden has been removed
and vein material being mined (see photo)VIII. GEOLOGY AND MINERALOGY: DEPOSIT TYPE: Epithermal vein in thrust fault
LENGTH: +800' WIDTH: Over 30' VEIN STRIKE North, dip 25-35° E.HOST ROCK: Tertiary volcanicsECONOMIC MINERALS: Gold is present at over .1 oz Au/ton in a green quartz and calcite
vein materialCOMMENTS: Initial metallurgical testing reveals a low lime but high cyanide
consumption by the ore.IX. EQUIPMENT ON SIGHT: Gardner Denver self contained air track, crushing and screening
plant, wheel loader, Fiat-Allis cat, electrical generating station (see photos), Backhoe.

X. SAMPLING: NOTE TYPE IF ANY, DRILLING? Air Track Drilling and underground sampling
done prior to current project phase.

XI. REFERENCES AND REMARKS The 15,000 ton pilot leach will consist of two heaps. One will
contain the plus ½" material, the other the fines. Recovery will be by carbon column.
At the time of our visit it was unsure whether Jorriex would bring in a stripping
unit or take the carbon to the mill at Tyro for stripping.

Average grade of material put on the pads is expected to be .1 oz Au/ton. Jorriex
has budgeted a quarter of a million dollars for the pilot project.

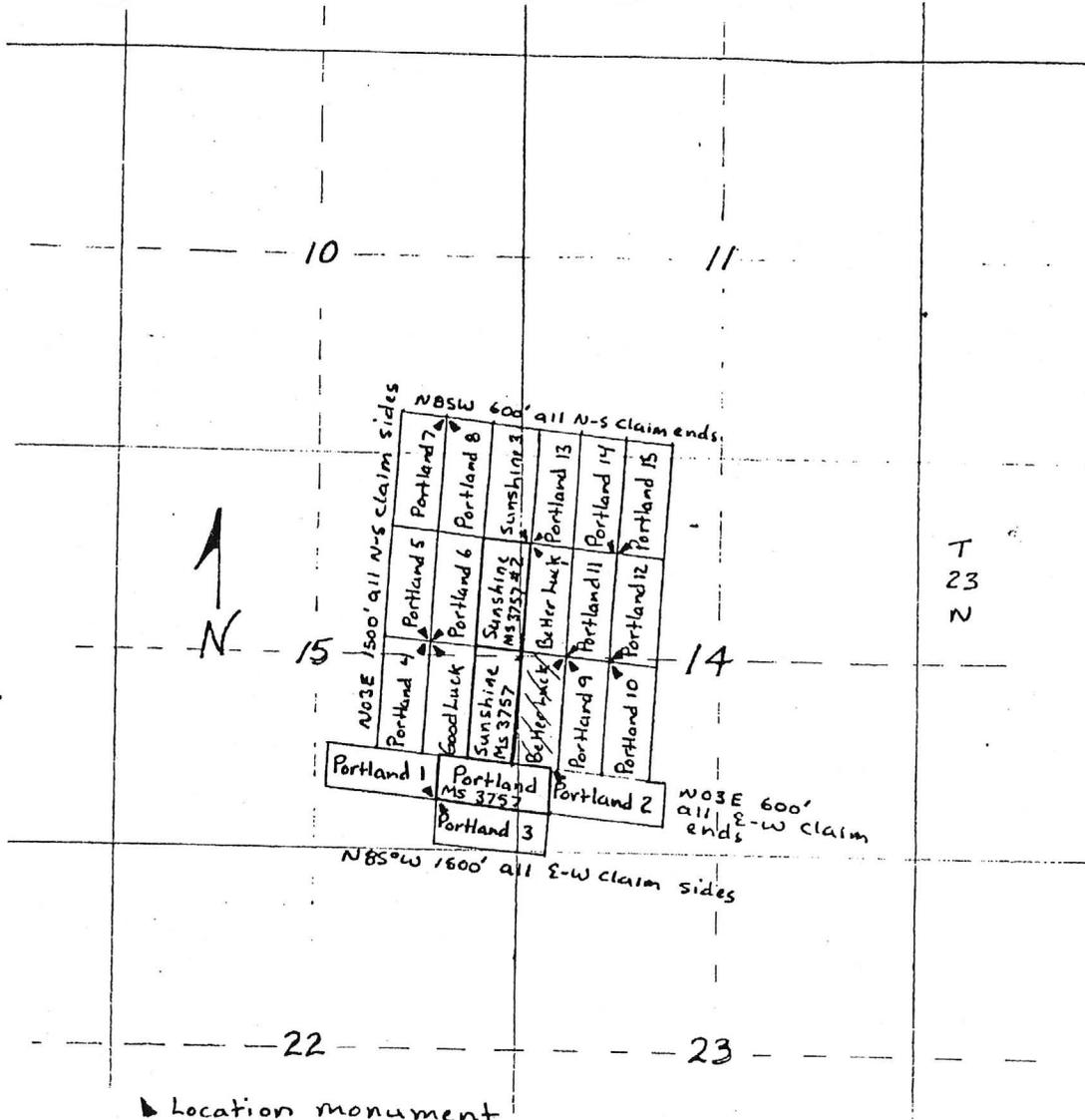
One gets the impression Jorriex must be working under a work commitment/time constraint
as things are moving very quickly. From getting on the property to pilot leaching
less than 3 months will have elapsed.

Three wells have been drilled on the property to provide water for the pilot operation.
Water was hit within 100-200' of the surface in all three but no pump tests have been
done to determine yield.

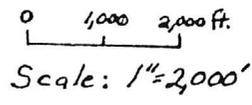
cc: Tucson office

Plat of Lode Claims

R 21 W



Name of claim Better Luck
 Type of Claim Lode Claim
 Claim situated in Mohave County, Arizona
 Type of corner and location monuments used - 2" x 2" x 5' wooden posts.



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

INDEXED

MICROFILMED

JOAN McCALL



County Recorder

By

Deputy Recorder

on JAN 13 1981 - 8 00 AM IN BOOK 684 OF OFFICIAL RECORDS at M. Pages 160-161

Fee \$3.00

Indexed	Photostat Compared	Blotted
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Ret Perry Durning
Fischer-Watt Mining
114 Tucker #2
Kingman Az, 86401

LOCATION NOTICE
(Lode)

NOTICE IS HEREBY GIVEN that the Better Luck lode mining claim has been located by Carl E. Fischer, whose address is P.O. Box 2542 Billings, Mont. This claim is 1500 feet in length and 600 feet in width. The general course of this claim is north-south and it is situated in the Weaver Mining District, Mohave County, Arizona. The location monument is situated at the northeast corner of this claim. This claim runs from the location monument on which this notice is posted 30 feet in a northerly direction to the North end line and 1470 feet in a southerly direction to the South end line and is also marked by six monuments, one at each corner and at the center of each end line of the claim, making the claim in the form of a parallelogram. The location monument at which this notice is posted is situated within Section 14, T. 23N, R. 21W, G.&S.R.M., and this claim encompasses portions of the quarter section, subdivision(s), Section(s), Township and range as follows: SW 1/4 Sec. 14, NW 1/4 Sec. 14
T. 23N R. 21W

The locality of this claim with reference to some natural object or permanent monument and additional information (if any) concerning its locality are as follows:

the location notice is posted approximately 2550' N + 670' E of section corners common to 14-15-22-23.

DATED AND POSTED on the ground this 27th day of October, 1980

Witnesses:

Locator(s)

Perry Durning

Don B. Muehlen
(Agent for Locator)

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

July 10, 1958

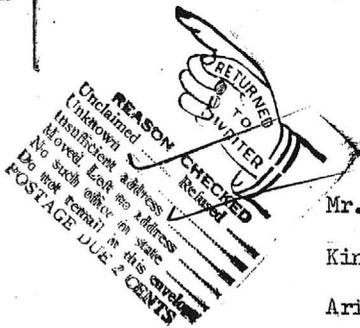
To the Owner or Operator of the Arizona Mining Property named below:

Portland Gold Mine (Mohave County)	Gold, some silver
(Property)	(ore)

above property which we would like to have

RESOURCES

unds



~~Mr. J. A. Potter
Kingman,
Arizona~~

line Owner's Report form with as complete detail
of reports, maps, assay returns, shipment returns
not sent us before and which might interest a
t the property.

Frank P. Knight

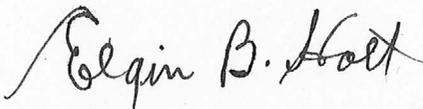
FRANK P. KNIGHT,
Director.

Enc: Mine Owner's Report

MINING & MILLING COSTS:

I would say roughly the costs of mining and milling Portland ores, using pre-war figures, should not exceed \$3.50 per ton, not including taxes. Hence, estimating mill heads at \$7.00, a goodly profit should be made, when and if we ever get back to "normalcy". Also, should gold be revalued upward, later on, which seems to be in the offing, profits would be increased accordingly.

If you think Broadgate would be interested in presenting these properties to his clients, I suggest you have copies made of the three reports, inclosed herewith, together with a copy of this letter, and mail the same to him. If he is then interested, he can then take these properties up direct with McVicar, whose address is: E. A. McVicar, Kingman, Arizona.



Elgin B. Holt,
Field Engineer.

cc - E. A. McVicar
Charles F. Willis

Again, Portland ore is composed of quartz and calcite, with no deleterious minerals or metals present. The gold is finely divided in the ore, in the nature of "flour" gold. Hence, this ore is amenable to treatment by cyanidation, by which 97% of the gold and 90% of the silver should be recovered as bullion. This statement is true of most of the other gold mines of that general region.

As to terms, Mr. McVicar states the Portland mine can be purchased outright for \$100,000, with around \$25,000 cash and the balance in term payments over a period of years, mainly payable from royalties figured at about 10% of recoverable gold and silver values. It being understood that a monthly payment, figured as advance royalties, must be paid owners in the sum of \$500; same to apply on the purchase price. Under this arrangement, purchasers will not be obliged to work the mine for the duration.

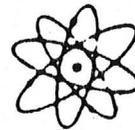
While the Portland, in its present stage of development, would not warrant the erection of a 400-ton mill, it has all the earmarks of a large-tonnage mine in the making. Also, additional ore in considerable amounts could be secured from several other gold mines within a radius of 10 miles of this property.

GOLDEN DOOR & KLONDYKE MINES:

Attached hereto are two reports by McVicar, one regarding the Golden Door and the other concerning the Klondyke mine, both located near together around 10 miles north of Portland. These are potential large-tonnage gold mines, especially Golden Door, which has a record production from surface workings, per McVicar, of 20,000 tons of ore milled, averaging \$8.59 gold per ton. These two mines can be secured, through McVicar, from owners on reasonable terms, by paying owners a monthly stipend; and should be worked in conjunction with Portland.



Fischer-Watt Mining Co. Inc.



ADMINISTRATIVE OFFICE: 114 TUCKER, SUITE 2
KINGMAN, ARIZONA 86401
PHONE: (602) 753-1622

TO: Carl E. Fischer, M.D. Roswell
FROM: W.P. Durning, D.R. Muchow
SUBJECT: Portland Mine

INTRODUCTION

The Portland Mine is located about 50 road miles northwest of Kingman in the west central portion of the Black Range, Mohave County, Arizona. Past recorded production from the Portland is 132,000 tons grading 0.201 o/T Au from both open pit and underground operations. The Portland is a massive quartz-calcite vein of the Oatman type locally over 30 feet thick and containing low grade gold values throughout. It is estimated that in excess of 100,000 tons of open pit reserves grading +0.10 o/T Au could be proven with a small inexpensive drilling program. Although no sepcific terms have been discussed with the owners it is believed reasonable terms can be negotiated.

OWNERSHIP

The Portland Mine owners are represented by Samuel L. (Lee) Clark, 3955 Maple Tree Drive, Anaheim, California 92807 Office telephone 714/632-1979; Home telephone 714/637-0762.

LOCATION AND ACCESS

The Portland Mine is located in the Weaver Mining District in parts of Sections 10, 11, 14, 15, 23 and 24; T23N R21W. Access is via paved, graded gravel and unmaintained dirt roads. The property is reached by driving 26.6 miles north from Kingman on Highway 93 then 8.8 miles west on the graded gravel Cottonwood Wash Road then 10.9 miles south on a little used but passable dirt road.

LAND STATUS

The Portland Mine area is covered by 3 patented lode claims and 19 unpatented lode claims which may now be invalid due to lack of assessment work during 1979. These claims should be re-papered immediately. The unclaimed ground is federal land open for location.

WILDERNESS STUDY AREAS

The Portland Mine and access routes from the main gravel road are surrounded by wilderness study areas north, east, and south of the mine and the Lake Mead National recreation area to the west. The patented Portland Mine claims and the access road to the mine are excluded from the wilderness. Discussions with Roger Taylor, Director of the Kingman BLM indicate that we can legally operate a mine on the patented claims and use the road as it now exists for access. Road improvements and expansion of the mine to the unpatented claims would require BLM approval which would not be unreasonably withheld.

Fischer-Watt Mining has developed a very good working relationship with the BLM and Roger Taylor who is pro-mining if done in a business-like and environmentally sound manner. I would not anticipate any serious problems from the BLM should a production decision be made.

HISTORY AND PAST PRODUCTION

The Portland was discovered about 1920. From 1935 to 1940 it was under option to the Gold Standard Mines Corporation which produced 132,000 tons of open pit and underground ore grading 0.201 o/T Au. In 1939 Gold Standard closed the Portland operations in favor of the Tyro Mine which was closer to their Katherine Mill. In 1937 C.M. Becker made an ore reserve estimate for Gold Standard which showed proven reserves of 287,000 tons grading 0.19 o/T Au in three orebodies. If these figures are accurate then at least 155,000 tons of these reserves should still remain in the mine.

During 1950 Continental Mining Corporation and Shattuck Denn Corporation made studies of the Portland but concluded that at post World War II costs the mine could not be profitably operated.

In 1978 and 1979 ASARCO Inc. initiated a surface sampling and hammer drilling program in hopes of developing a large low grade open pit reserve. The drilling results were disappointing and they returned the property to its owners.

In October, 1980 D. Muchow and W.P. Durning visited the property and concluded that further evaluation of the property was justified.

GEOLOGY

The principal rock types in the Portland Mine area are a thick sequence of Tertiary volcanic flows and tuffs which are underlain by preCambrian granite. There are two principal veins, the North vein which strikes nearly N-S and dips from 20° - 35° E and the South vein which strikes nearly E-W and dips 47° to the north.

The Main or North vein has been extensively explored and developed. Two open cuts, two inclined shafts and two tunnels explored the vein and these developments provided most of the 132,000 tons of ore mined. The vein is massive quartz and calcite varying from 10 to 30 feet in thickness and everywhere carries +0.01 o/T Au. Best values seem to be within 10 feet of the hanging wall and it is believed that this is where the majority of the ore was mined. The main vein shows a surface outcropping of 10' to 30' of massive vein material over an exposed strike length of 800 feet. The vein unfortunately, has not been everywhere sampled in the hanging wall zone but where it has been sampled results in excess of 0.10 o/T Au are common. Around the north and east margins of the main pit and at the limits of underground stoping nearly every sample collected has run in excess of 0.10 o/T Au in the hanging wall zone. It is within this area that the open pit potential may exist on the property. A second observation is that past development never extended more than 100' below the surface and limited drilling information and underground sampling show values generally +0.10 o/T Au over widths of up to 10 feet. Further geological work is needed in order to adequately evaluate the meaning of old assay results but I believe this will only enhance the ore reserve estimates.

The main vein potential could be evaluated very quickly by completing this surface and underground sampling and geological mapping and by drilling 50-60, 50-100' deep air track holes in the area of massive vein outcrops. I would estimate 2-3 months to be sufficient to adequately test the open pit potential.

The South or Small orebody trends nearly E-W and dips 47° N. It is developed via a 100' incline shaft and shows vein widths which vary from 20" to 72" and grades up to 0.32 o/T Au. The vein appears to widen at depth, increase in value with depth and has never been drilled or adequately explored. The surface vein exposure can be traced for at least 1,000' but has only been explored to an incline depth of 100' in one working. In this incline the vein increases in width from 2-3' at the surface to over 6' at the bottom. The overall weighted grade and width is 0.248 o/T Au and a 4.2' average thickness. It should be noted that ore occurs from the surface down and that with several shallow drill holes it may be possible to define a mineable reserve of +0.20 o/T Au.

GEOCHEMISTRY

Fischer-Watt Mining has collected 15 rock chip geochemical samples in the Portland Mine area. All samples showed anomalous values.

The Geochemical results are summarized below:

<u>Sample #</u>	<u>Description</u>	<u>Width</u>	<u>o/T Au</u>	<u>o/T Ag</u>
Port #1	Select Spl Gn Quartz	N.A.	0.282	2.35
Port #2	Dump Spl. S. Pit	N.A.	0.111	2.95
Port #3	S. Pit NE Wall HW andesite	3'	0.022	.05
Port #4	S. Pit NE Wall HW Quartz vein	8'	0.054	0.70
Port #5	Cutting Spl. P.M. 2 ASARCO RDH	N.A.	0.014	0.45
Port #6	Dump Spl. N. Pit	N.A.	0.046	0.70
Port #7	N. Pit Incline Quartz vein HW vein	7'	0.106	1.75
Port #8	"	6'	0.055	0.35
Port #9	S. Pit adit Quartz vein FW vein (?)	5'	0.039	0.55
Port #10	"	57'	0.035	0.60
Port #11	Dump S. Pit adit	N.A.	0.034	1.20
Port #12	Dump Spl. S. ore body	N.A.	0.088	0.75
Port #13	S. orebody 300' w. of incline	2½'	0.331	0.90
Port #14	S. orebody 50' down incline	3'	0.124	0.40
Port #15	S. orebody 50' down incline	3'	0.134	0.90

The values obtained by FWM are consistent with those taken in the past and provide support for the possibility of developing a mineable orebody at the Portland.

ORE RESERVE ESTIMATE

Appended to this report are all the maps and reports on the Portland Mine available to us through the owners, the Arizona Bureau of Mines and the Mohave County Mining library. All indications are that a mineable reserve still exists at the Portland.

The most compelling evidence for a remaining ore reserve is from a report by Elgin B. Holt, Mining Engineer with the Arizona

Bureau of Mines. Mr. Holt cites a report by Clyde M. Becker made for Gold Standard Corporation in 1937. According to this report which is not available to us, the 1937 proven reserves were 287,000 tons grading 0.19 o/T Au + Ag equivalents. Between 1935 and 1939 132,000 tons grading 0.201 o/T Au were removed which means if Becker's work was accurate at least 155,000 tons grading ± 0.19 o/T Au must still remain in the mine. Becker's original estimates, however, cannot be confirmed.

An old assay map dated October, 1935, Plate I, outlines the major underground and open pit reserves at the Portland. Most of the indicated ore appears to have been removed by the Gold Standard operation.

Three other surface and underground assay maps, Plates II, III, IV, compiled from data obtained between 1940 and 1950 indicate

#1- The Main vein stopes in the South pit area terminated in ore down dip and to the north averaging 0.10 to 0.20 o/T Au and + 5 feet in thickness. No sampling was done on the south side of the stopes.

#2 - The Main vein stopes in the north pit area terminated in ore both north and south grading 0.10 to 0.20 o/T Au and +5 feet thick. Very limited sampling was down dip.

#3 - Between the South pit and North pit areas much of the massive quartz and calcite vein which remains may be footwall material with values grading from 0.02 to +0.10 o/T Au. This area has never been adequately sampled and may provide a significant tonnage of easily obtainable open pit ore. A few air track holes would give a quick inexpensive estimate of the grade and quantity of the available ore.

#4 - The ASARCO hammer drilling program indicates that values greater than the 0.10 o/T Au occur in the hanging wall of the Main vein down dip from the past productive stopes. Whether the ASARCO values are representative of values to be expected through mining is not known.

#5 - The South orebody shows a proven reserve, estimated by Becker to be, 6,000 tons of 0.4 o/T within the 100 foot incline shaft and the limited drifting from the incline. This estimated grade is higher than the reported mined grade of 0.23 o/T Au. Limited assay data available to us indicates significant tonnages of material grading +0.20 o/T Au probably still exist in the mine but will require further exploration.

METALLURGY

Past production records for the Portland indicate +95% recovery of the values contained in the ore which included both gold and silver. The ore is of the Oatman type and requires grinding to 80% - 200 mesh.

CONCLUSIONS

All available data indicate that the Portland may provide an attractive exploration, mining and milling opportunity for the McCracken partners.

RECOMMENDATIONS

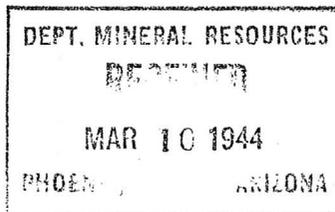
It is recommended that:

- 1) That the ASARCO lode claims be repaperd.
- 2) A lease option agreement be negotiated with the present land owners.
- 3) Further surface and underground geological mapping and sampling be completed at the Portland to verify past sampling results and permit better geological interpretation of the assay values.
- 4) 50-60 air track drill holes be drilled to test the massive quartz-calcite vein outcropping between the North and South pits of the Main vein.
- 5) A limited shallow drilling program be initiated in the area of the South orebody to determine its extent and grade.

March 9, 1944

MEMORANDUM

To: J. S. Coupal
From: Elgin B. Holt
Subject: Portland Gold Mine *23N, 21W*



Suggest you call Broadgate's attention to this mine

Some time ago, you and Charlie stated that Bill Broadgate had a client who was in the market for a gold mine that would supply a 400-ton mill. Later on I spoke to yourselves about the Portland gold mine, located 50 miles northwest of Kingman.

Without mincing words, the Portland is by far the best gold mine I have ever examined in Arizona, excepting Goldroad, and it can be secured on reasonable terms.

E. A. McVicar, of Kingman, represents the owners of this property and any deal should be negotiated through him. He is a reliable business man of this community and can be depended upon in every way.

I am herewith inclosing my report on Portland, mainly compiled from authentic records in McVicar's office, but partly from my own investigations, as I have inspected it a number of times. You will note that Portland was examined during 1937 by Clyde M. Becker, a geologist of high standing, now deceased. He estimated that the mine then contained 287,000 tons of ore averaging \$6.64 gold per ton.

It seems that Becker was very modest in this estimate, as Gold Standard actually mined and milled 132,000 tons averaging \$7.22 gold per ton, according to this company's own assays, used as a basis for figuring royalties to owners. It is a well-known fact that Gold Standard used an adequate safety factor in reporting assays. So I would say off-hand this 132,000 tons in all probabilities contained about \$8.00 gold per ton, not counting

the silver content, which seems to run around one ounce per ton in Portland ores. By cyanidation, a goodly portion of the silver values would be recovered along with the gold. Possibly the recoverable silver should at least equal 50 cents per ton, an item not to be sneezed at.

You will also note that this mine, after its abandonment by Gold Standard, was thoroughly sampled by the Continental Mining Company of New York and also by Mette & Hamron of Los Angeles; results of both samplings averaging around \$7.00 gold per ton.

The main Portland vein is wide, from 12 to 20 feet in thickness and crops for 1200 feet. I would say at least half of the ore mined by Gold Standard was quarried from the outcroppings of this huge vein. The managers of this company were chloriders, and not miners. They gutted the surface croppings of a half-score of mines surrounding the Katherine mill. They were not interested in the development of any mine in this or any other area.

Roughly I would estimate that if the Portland vein could be developed by sinking an inclined working shaft on vein and then blocked out by drifts on vein at 100-foot intervals, that each ^{100-foot} block below the present workings would yield at least 100,000 tons of ore, estimated to run around \$7.00 gold per ton, with a little silver. Furthermore, deducting the 132,000 tons mined by Gold Standard from the 287,000 tons originally reported by Becker, the Portland now has indicated about 155,000 tons, averaging about \$7.00 gold per ton, although this ore is not blocked out by any means, and should be considered as probable ore only. In the bottom of the "Big Stope" the vein is still at least 12 feet wide, with values holding to around \$7.00 gold per ton.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine PORTLAND

Date March 3, 1944

District Minnesota-Weaver, Mohave Co.

Engineer Elgin B. Holt

Subject: Gold Mine Survey

R E P O R T

OWNER: J. A. Potter, Kingman, Arizona.

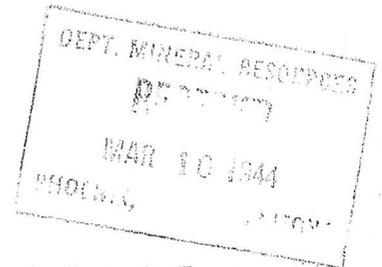
AGENT: E. A. McVicar, Kingman, Arizona.

METALS: Gold with small amount of silver.

AREA: LOCATION: This property, consisting of 3 patented and 5 unpatented claims, is situated in Mohave County, Arizona, 50 miles northwest of Kingman and six miles east of the Colorado River. From Kingman, the property is reached by following U. S. Highway 93 north 28 miles to Pleasant Valley Junction; thence west along the Searchlight road for 10 miles; thence southwesterly about 12 miles to the mine.

HISTORICAL:

Property was discovered about 1920. From 1935 to 1940 it was worked under a lease and option arrangement by the Gold Standard Mines Corporation. During this period approximately 132,000 tons of ore were milled averaging \$7.22 gold per ton, according to settlement sheets now on file in McVicar's office in Kingman. The said ore was treated in the Katherine cyanidation plant located 11 miles southeasterly from property, or about 16 miles over a very poor sandy road, over which the ore was hauled by trucks. The property was abandoned during 1940 by Gold Standard due mainly to the fact about that time this company secured control and started operating the Tyro mine, a much larger property and located only 7 miles from the Katherine mill.



GEOLOGY:

Per F. C. Schrader, 1909, "The country rock", of that general area, "consists of the Tertiary volcanic rocks, with rhyolite and green chlorite andesite most abundant."

ORE RESERVES:

During April, 1937, after the Gold Standard company had started work on the Portland mine, Mr. Clyde M. Becker, a very able geologist, reported on that property as follows:

"I estimated that approximately 700 feet of development work on these three ore bodies had proven 287,000 tons of ore of an average value of \$6.64 (gold) per ton."

Referring to the cross-vein on the Portland claim, Becker stated:

"On the little ore body an inclined shaft had been sunk 100 feet with ore of grade similar in type and values to the south tunnel ore body. A series of assays taken at 95 feet ran 0.18 to 0.44 ounces gold. All carry silver in the approximate ration of 5 to 1 by weight. No other mineral (metallics) is present."

MAIN VEIN:

The main vein, which strikes north to south, is a wide flat vein dipping about 35 degrees easterly. The deepest work on mine is about 100 feet vertically, reaching the permanent water level. The main vein mentioned is exposed on surface for around 1200 feet; but it is believed to extend 500 feet further to the south through a basin where the vein is covered by debris. This vein is wide, averaging 12 feet in thickness, but "bellies" out in places to 20 feet or more in ^{width} ~~thickness~~. The vein gangue is composed of quartz and calcite, with no deleterious metals present. Hence the ore is ideal for treatment by cyanidation, by which process around 97% of gold values should be recovered.

MINE WORKINGS:

The main workings of property consist of the following openings:

1. A 100-foot shaft sunk on the cross-vein, exposing the "Little Ore Body" mentioned by Becker. 2. The South Tunnel which develops the "South Tunnel Ore Body"; and 3. The North Tunnel, which develops the "North Tunnel Ore Body". Also at the bottom of the 100-foot shaft on the cross-vein a drift 100 feet in length has been run on vein, which is from 4 to 6 feet wide of good milling ore. It will be noted that this ore, per Becker, assays from 0.18 to 0.44 ounces gold per ton.

The South Tunnel is about 200 feet in length connecting with the "Big Stope" at back end, which is now partly caved; but ore faces in stope are accessible for sampling.

The North Tunnel starts as an open cut about 100 feet in length on the main vein, and continues south as a tunnel partly on vein and partly in the foot wall to a point where it connects with the "Big Stope" workings. Also there is a shaft 100 feet deep on vein near the mouth of the open cut at north end of property; also a 100-foot drift running south on vein from the bottom of the said 100-foot shaft and connects with a raise to the open cut above. All of these workings are open and accessible for sampling.

MINE SAMPLED BY OTHER ENGINEERS:

After the Portland mine was abandoned by Gold Standard, it was sampled by engineers representing the Continental Mining Company of New York and also by Mette and Hamron of Los Angeles. The average results of both of these samplings gave better than \$7.00 gold per ton, according to records in McVicar's office, and which can be examined at any convenient time.

WATER:

Ample water for milling and domestic purposes could be secured from the Colorado River, six miles from property, by means of an application for a water right from the Arizona Water Commission.

MILLING PLANT:

Further work should be done on the Portland Mine in order to determine its ore reserves, average value of ore, and the capacity of a treatment plant that should be installed at a later time. As additional ore could be secured in quantity for such a plant from four or five other gold mines within a radius of 10 miles of Portland, it is believed that an operation could finally be developed that would result in supplying a mill of large capacity, say from 300 to 500 tons daily, with gold ore of goodly grade over a long period of years.

Elgin B. Holt

Elgin B. Holt,
Field Engineer.

Leon Berger
- Norm Adams -

Portland Mine 10/27/80

Port # 17 - et below workings

6' qv 60% 20% CaCO₃
20% and wall vx. Qtz un
and bx Near Seckerog sp?

Prob 2-30' below surface.
SW not reached

Port # 18

6' hi spl 90% CaCO₃
un 5% wall vx 5% Qtz.
Near EW. Total thickness.
+ 12' SW not reached

Port # 19

6 1/2' Qtz CaCO₃ un. stent
w/ un 16' Hw. st. g. ly
Shaded grn & brn Qtz 80%
20% CaCO₃. SW not reached

Port # 26

5% and 85% Qtz 10%
CaCO₃ - most Qtz grn - rest
gray or white spl. 4' in
Hw un. w/ un 6" g Hw
at spl 1572

Port # 27

6' high e spl 1522
massive Qtz & CaCO₃ loc
sanded. ~~sw~~
old workings total un
at least 15'

Port # 28

Dup spl mod. select
g grn Qtz. ~~grn~~ s. pits.
prob 6-8000 T and up

Port # 23 - Dup spl. from
Tunnel spl #22. 75%
Qtz & Cal. 25% and. Inside
mine

Port # 24 - 7' bx qv un
& CaCO₃. 90% 10% and.
Qtz & CaCO₃. both lt grn to
Tan. spl at H-286 #1471

Port # 25 - 4' Hw qv w/
Qtz & CaCO₃ bx w/ 10% wall
vx frags & lt green to honey,
yellow Qtz. e spl 1499.
spl. in this area routine
1-2' into barren Hw
and. Face of drift is
not exposed.

Port # 20 - bx and 6 Qtz un.
bx Tectonic ~~fer.~~ over 58"
at same local as H-38, 38A.
At limit of workings

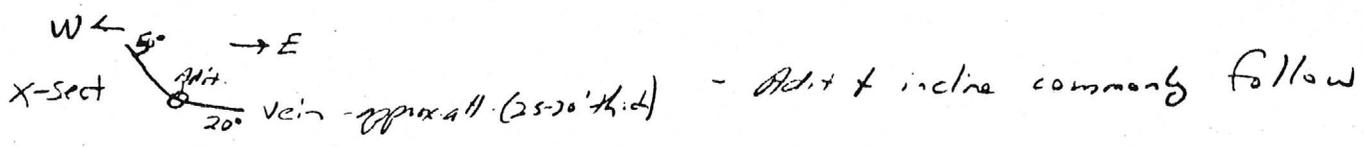
Port # 21 Hw bx w/
20% green Qtz - 70%
slc and + 10% CaCO₃
6' TK spl. alt H-35, 35A
local.

Port # 22 Hw ~~et~~ CaCO₃
un + and bx w/ ~~out~~ ^{white} Qtz
& CaCO₃. Immediately below
Hw and. No green Qtz. If
spl. runs. v. sig. & undist.
good tonnage potential if black?
6' TK

Tues. → 1/1/00

- Portland X - new side → gneiss, NE-flow (and?) + congl. (?)
- Port 1 → ...
- Port 2 → ...
- Port 3 → 3' channel chip → highly hem. alt. tuff. agglomerate (?) - volc. frags - ...
 attitude here - ^{dig} 25° E - strike ≈ N-S, lower 2" of congl. = hem. gouge - of vein
- Port 4 → 8' thickness, ⊥ to vein (h.w. of vein) - weak mn. stain gtz - mn. cc.,
 10% dt. wallrock (inclusion in vein) - 90% gtz-cc. (vein)
- Port 5 → ^{PM-12} drill chips - 15% gtz. pebbles - 85% dt. wall rock & powder.
- Port 6 → dump on N end of property - 90% gtz (grn. wh.) - 4cc, rest is host.

Note: - local good → very complex structure, Vein (= 25-30' thick) is very flat & further to W. steepens slightly to maybe 50°



Diked contact between h.w. of gtz. vein & underlying tuff. aggl. (?) w/ gouge in middle

- #1 Adit. {
- Port 7 → 7' ⊥ to vein - h.w. to flow drift (f.w. not exp). broad + Feox str. - fg. grn. to wh. gtz. - mn. cc. 10% wallrock
- Port 8 → 6' ⊥ to vein, - h.w. to sill, slight (wk) Feox. stain bottom 3' - 20% cc., 75% gtz. (fg. wh. to grn) 5% wallrock. 15' dd. #77 (Asarco).

MCR 80-100 dump sample
 from Democrat Mine in Hualapala
 Can't find outcrop of any decar.
 vein - little stringers of gtz - py
 vltz in deeply weathered biotite
 amphibolites. Lots of x-cutting
 white c.g. granite & pyroxenite
 dikes. Dumps are primarily
 gtz - py vein - quite gossany

10/31/80
 COOL, PARTLY CLAY
 TODAY'S DIG:
 SAMPLE PORTLAND MINE W/ DON
 IN N. PIT:

PORT-30: 1.5' THICK OF
 DEEPLY FE & CLAY-AST VENTS
 ANDESITE (?) - HAS .1 mm to
 .5 mm stringer of white cl
 ON HW of vein. N12W,
 21 NE.

-31: directly below 30. 5.0'
 THICK N10W, 18NE mixed
 clay - lim - goethite - w/ variable
 gtz content (some zones mostly
 lim - clay, some mostly gtz - replace
 note volc). Perhaps 60-70%
 gtz wash.

-32 - 2m cobbles
 -33: 3.1' vertical clay exp.
 70-80% green & porous like 1 - 2

-52: 4' high chip sample
of coarse cc + green gtz (~30-40%)
Green gtz is later than cc +
may have recrystallized it into
the matrix. Below sl - pretty
aa This sample near 4' thick

-53: 10' high chip sample
aa 52 - following down dip
slope - only a couple feet
dip thickness (not sure how much)

Now go to incline
on "LITTLE OREBODY"
About 30' down east to sample
H146 take PRT-SA

4.0' thick banded + partly
buggy green gtz + cc on top
+ red iron (limonite) gtz on bottom.

-55: 4.2' thick green gtz +
cc at HW - red-brown gtz + cc at
FW. NBOW, F7ME - no banding
lots of br textures, some br
fragments of silicates - at top where
small drift intersects incline

FROM SHAFER, 60 ~ 250' NBOW
to diggings on vein - here's
PORT-59 is 2.5' THICK (FW NOT
seen) of white cc + pads of
green gtz E-W, 48 N (30-51' W
green gtz) - ~~End~~

Find outcrop of sand thin
(E-W) zone of silicates ~30'
W of here, but can't find
any mineral W of here. Either
pinches out, or is faulted off
at the N15W trending valley here
I think it pinches out.

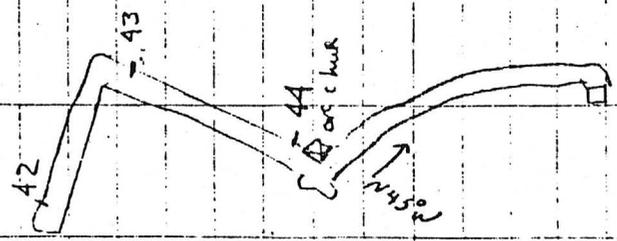
Port. 44 → 5' high just S of one
Chute - chip - 70% CC - 20% host 10%
qtz - Vol. Breccia - in S. of N. Pit.

PORT-45: 6' high chip sample
at agglomerate poorly consolidated,
slightly calcified fanglomerate.
Contains some fragments of qtz vein
material - up to 60% locally. Fine
poorly sorted or unsorted matrix
of qtz vein fragments, clays, etc,
volcanic fragments.

PORT-51: 6.5' high chip sample
of Calcite + qtz + silicified
of latite fragments. Green qtz
most abundant at top of vein (85%)
- mostly white CC at bottom
CC locally as large vesicles
looking over pit, get avg. altitude
NITE, 2956
Basalt dike 1-2' thick
cuts vein in place concordantly
in place discordantly

From bottom of 92' shaft

1" = 40'



N ↓

mcf80-100
 from Democrat Mine
 Car is find outcrop of any decuss
 vein - little string of gtz - py
 vltz in deeply withed diorite
 admixed. Lots of x-cutting
 white c.g. granite r pyroxide
 dikes. Dumps are primarily
 gtz: py vein - quite gossany

10/31/90
 Cool, Partly clay
 today's obj.
 SAMPLE PORTLAND MADE w/ DON
 IN N. PIT:

PORT-30: 1.5' THICK OF
 DEEPLY FE O CLAY-AIT vltz
 ANDESITES (?) - has .1 mm to
 .5 mm stringer of white cl
 ON HW of vein. N12W,
 21 NE.

-31: ductly below 30. 5.0'
 THICK N10W, 18NE mixed
 clay - lim - gooswhite - w/variable
 gtz content (Some zones mostly
 lim - clay, some mostly gtz - replace
 vltz vltz). Perhaps 60-70%
 gtz vltz.

-32 - Don collect

-33: 3.1' vertical clay impl.
 70-80% green s porcelain like xi - v.

abundant white + pinkish clays.
No lim or greishik. Don't go to
FW of vein since it is
covered by talus. P27W, Z3NE

vein is concordant w/ [volcanic]

PORT-36: IN SMALL SHAPE
AT TOP OF WORKINGS FROM
N. PIT ~~DE~~ INCLINE - NEXT

TO SMPLE HQ MASSIVE
white cc locally o. c. grains
has 6x fragments of spherulites
volcanic wallrock. 6.2' high
& looks to go deeper since
we're not on top of vein at
bottom. V. minor gtz. < 5%

-40: 5.5' high at W
end of drift (x-cut sort of)
Clay + cc alt wallrock + massive
white + brown cc as irregular
pods + vlt's.
It silicified f/t surface
at end of x-cut has a N75E,

52 SE w/ rounded mass

-41: 5.7' high chip - note vein
gives another 2' higher when view
from corner - bottom of vein not
seen. Massive pink + white
gtz + cc - top half is
> 75% gtz - bottom of sample
mostly cc - up to 100% "

Port 42 - in E drift below shaft of N.P. +
near H-18 (4' from face) 5 1/2' seg. of
vein bx = 10-15% host rock (latite) +
the rest brn-grn-wh. c.c. - locally vein
contains much more br frags of host (to 60%)
Att not obtainable. (Cut by several thin
c.c. stringers - random orientation to / thick)

PORT 43: W. # of #42 + right
near to H16 (a v. scatterly
channeled sept) - all white -
pink + grey cc w/ unsupported
large fragments of wallrock
5.5' high

A₄ A₅

.122 1.35 Port 36 → next to H-4 ^{→ .178} - 6.2' - goes deeper, more wh. c.c., locally coarse grained - bx frags silic. wh. abs < 5% gtz

.292 1.8 Port 37 → in decline of N. pit - c. H-10 ^{→ .26} - 6' wide sample not to horizon from (3' from h.w. - f.w. buried). ^{not located prop. on map.} Att. - N25°E, Dip = 32°E
Sample = 70% c.c. - 20% gtz, 10% host (in part 15-15 gtz-host)

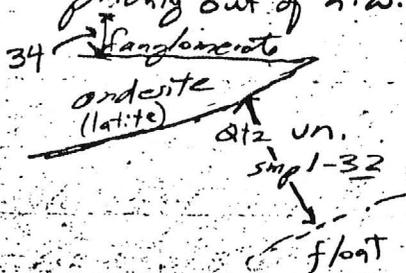
.444 1.4 Port 38 → 5' wide sample - 90% c.c. - 10% gtz - in deep hole to N. in decline E. of N. Pit Att. - N15°W - 30°E

.005 .05 Port 39 → ^{next to H-9 → .33} 5' wide sample - 90% c.c. - 10% gtz - bx frags - wh. locally bxd - little hem., from h.w. down - f.w. not exposed
Att. = N5°W, 18°E (very undulating contact w/ h.w.)

.021 .10 Port 40 → 3.5 high - FACE drift - clay c.c. at wall rock.
massive wh-bri. cc. in pods/pulls slick - N75°E - 52°SE - normal here host is highly altered intrusive (?)
Major fault 15' from face: N40°E, 65°SE. ^{50°} - here porphyritic dike (latite) 2-2½' wide - gouge (hem. stain) on host f.w. major structure - intrusive in f.w., in h.w. bxd intr. w/ vein bx. General fault contact w/ vein / intrusive.
If fault is normal, vein is @ surface to W. or eroded.

.052 .75 Port 41 - decline from N. Pit - 5.7' high - vein goes another 2' higher - bottom not seen - Massive pink-wh-gtz-c.c. Top ½ is >75% gtz - bottom mostly cc.

FRI- Oct. 31 PORTLAND - Pete & I

- .009 Au Ag 1.05 Port 30 → 1.5' deepy fred- clay alt. ardenite - s. 1 mm
stages white cc. on h.w. of vein - N12W-21°E
- .032 .2 Port → 31 → 5.0' thick - mixed lin. + clay + Qtz, locally
ing c.c. - soft w/ clay to hard → ≈ 70% Qtz.
N18°W; 18° N.E.
- .142 .8 Port. 32 → S. end of N. Pit 10' from top wall - un. #.
≈ N-S; 34° E dip (note - just below latite H.W. near
pinching out of h.w. which is overlain by Qtz bearing fanglomerate.
34'  Smp 1 = 6.7' thick = 90+90
Qtz = 59% host + poss. 5% acc.
some hem stain - does not go to f.w.
(15-20# smp)
- .196 2.8 Port 33 → 3.1' net. chip - 70-80% grn. Qtz - white to pink clay,
smp doesn't go to f.w. AH. N27W, 27NE
- .144 .80 Port- 34 → S. end of N. Pit - scabbie- scetch - into ardenite fangl.
for 3 1/2' thick (true x- sect.) - very representative due
to soft nature of unit - ≈ 30-40% Qtz - rest is clay +
caliche matrix. AH. of fangl ^{here} = N10W- 10° E (rough
cont w/ latite  ground dip).
- .020 .6 Port 35 - S end of N. Pit - 20' below 32 - here 90% Qtz - silica matrix, +
host - smp = 4' wide (level 2 14' d. 1.1.1 1.1 1.1)

1435 S. 10th AVE.

P. O. BOX 1889

DUPLICATE

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

Certificate No. 600390

TUCSON, ARIZONA 85702 Oct. 20 1980

Sample Submitted by Mr. Fishman Watt

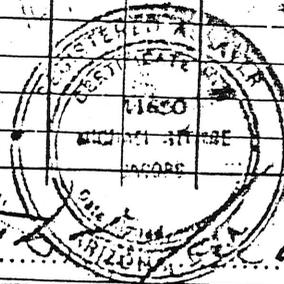
SAMPLE MARKED	Gold		Silver	SAMPLE MARKED	Gold		Silver
	175. per ton	1000			175. per ton	1000	
Plant 1	1.282		2.35	Plant 15	1.134		6.90
2	1.111		2.75	16	TRAC		50.05
3	1.102		2.10				
4	1.154		2.70				
5	1.114		2.15				
6	1.146		2.70				
7	1.106		1.75				
8	1.135		1.35				
9	1.139		1.55				
10	1.135		1.60				
11	1.130		1.20				
12	1.113		1.75				
13	1.131		1.90				
14	1.124		1.40				

* Gold Figured \$35.00 per oz. Troy

Charges \$ 103.00

< less than

Very respectfully,



1435 SOUTH 10TH AVENUE
TUCSON, ARIZONA 85713

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

Certificate No. 60650

Since 1880

TUCSON, ARIZONA 85703 Nov. 4, 1980

Sample Submitted by Mr FISHER-WATT

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
<u>PORT-17</u>	<u>0.258</u>		<u>1.00</u>				
<u>18</u>	<u>0.146</u>		<u>0.30</u>				
<u>19</u>	<u>0.230</u>		<u>0.55</u>				
<u>20</u>	<u>0.105</u>		<u>0.50</u>				
<u>21</u>	<u>0.206</u>		<u>1.10</u>				
<u>22</u>	<u>0.098</u>		<u>0.55</u>				
<u>23</u>	<u>0.071</u>		<u>0.40</u>				
<u>24</u>	<u>0.158</u>		<u>0.50</u>				
<u>25</u>	<u>0.174</u>		<u>0.35</u>				
<u>26</u>	<u>0.085</u>		<u>0.20</u>				
<u>27</u>	<u>0.494</u>		<u>0.35</u>				
<u>28</u>	<u>0.081</u>		<u>0.55</u>				
			<u>11</u>				

* Gold Figured \$300.00 per oz. Troy

Charges \$ 78.⁰⁰

Very respectfully,

[Signature]

1435 S. 10th AVE.

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

Certificate No. 60704

TUCSON, ARIZONA 85713... Nov. 10 1980

Sample Submitted By Mr. FISHER - WATT

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore *		SILVER Ozs. per ton ore	LEAD Percent Wet Assay		COPPER Percent Wet Assay		PERCENT Percent Wet Assay		PERCENT Percent Wet Assay	
PORT -30	0.009	\$		< 0.05								
-31	0.032			0.20								
32	0.142			0.80								
33	0.196			2.80								
34	0.144			0.80								
35	0.020			0.60								
36	0.122			1.35								
37	0.292			1.80								
38	0.444			1.40								
39	0.005			0.05								
40	0.021			0.10								
41	0.052			0.75								
42	0.167			0.85								
43	0.064			0.20								
44	0.117			0.60								
45	0.419			2.00								
46	0.027			0.50								
47	0.050			2.65								
48	0.198			1.20								
49	0.032			0.65								
50	0.015			0.30								
51	0.021			0.40								
52	0.043			0.70								
53	0.011			0.15								
Little ore body < 54	0.317			1.40								
S.P. 55	0.035			0.20								
56	0.052			0.65								
57	0.055			0.70								
58	0.041			0.25								
59	0.007			0.80								
62	0.577			2.95								

< LESS THAN

* Gold figured \$100.00 per oz. Troy

Very respectfully,

Charges \$201.50

PORTLAND AI
K [signature]

ARIZONA DEPARTMENT OF HEALTH SERVICES

Evan Mecham, Governor
Ted Williams, Director

NOTICE OF INTENT TO (ISSUE) (A) GROUNDWATER QUALITY PROTECTION PERMIT(S)

Pursuant to Arizona Compilation of Rules and Regulations, Title 9, Chapter 20, Article 2 the Director of the Arizona Department of Health Services intends to (issue) (a) Groundwater Quality Protection Permit(s) to the following applicant(s), subject to certain special and general conditions.

Public Notice No.107-86AZGW

February 9,1986

James Belegante
Post Office Box 399
Bullhead City, Arizona 86440
Groundwater Quality Protection Permit No. G-0025-08

The permittee shall be authorized to operate a nondischarge hydrometallurgical precious metal recovery facility utilizing the cyanide heap leaching method. The facility is located 35 miles Northwest of Kingman, Arizona (T 23 N, R 21 W, SEC 15 SE 1/4 SE 1/4 NE 1/4). The Proposed Groundwater Quality Protection Permit (GQWPP) shall regulate the containment of cyanide leach solution to be used in the operation of the heap leach facility. The ponds (pregnant and barren) which contain cyanide solution shall be lined; first with a geotextile fabric, then with hypalon (u.v. resistant) to make an impermeable layer. The heap ore pad shall have a leak detection and collection system underneath the liner to be monitored for the presence of liner leakage. The facility shall monitor all leach solutions daily in the form of a water balance record and monitor leak detection collection system weekly for liner leakage. On-site are four water wells which are to be used for operational water demands and serve as groundwater monitoring wells, to be monitored monthly for presence of leach solutions constituents. Groundwater is at a depth of approximately 150 to 300 feet below land surface.

The permit (application)(Notice of Disposal) is available for public review Monday through Friday, 8:00 a.m to 5:00p.m. at ADHS, Environmental Health Services, Water Permits Unit, 2005 North Central Avenue, Phoenix, Arizona 85004.

Persons may submit comments or request a public hearing on the proposed action, in writing, to ADHS at the above address within thirty (30) days from the date of this notice. Public hearing request must include the reason for such request.

? evan
min

RECEIVED
FEB 10 1987

The Department of Health Services is An Equal Opportunity Affirmative Action Employer

Dave



PORTLAND MINE
CARD ON COMPANY - SEE
NEXT PAGE DO NOT
LOAN + COL. ADDRESS

Office of State Mine Inspector

705 West Wing, Capitol Building
Phoenix, Arizona 85007
602-255-5971

STATE MINE INSPECTOR

AUG 27 1984

NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with Arizona Revised Statute Section 27-303*, we are submitting this written notice to the Arizona State Mine Inspector (705 West Wing, Capitol Building, Phoenix, Arizona 85007) of our intent to start/stop (please circle one) a mining operation.

COMPANY NAME WESTERN STATES (PORTLAND JOINT VENTURE)
MINERALS CORPORATION

CHIEF OFFICER Bob Wallin - Mine Superintendent

COMPANY ADDRESS 4305 Stockton Hill Rd., Kingman, Arizona 86401

COMPANY TELEPHONE NUMBER (602) 757-2184

MINE OR PLANT NAME Western States Portland Joint Venture

MINE OR PLANT LOCATION (including county and nearest town, as well as directions for locating by vehicle)

Mohave County, Approx. 40 miles NW of Kingman, AZ. Access to the mine is via highway 93 North from Kingman to Cottonwood Road, then left (west) about 9.4 miles to a road going left (south), then about 9 miles to the mine site.

TYPE OF OPERATION Open Pit PRINCIPAL PRODUCT Gold

STARTING DATE September 15, 1984 CLOSING DATE March 1986

DURATION OF OPERATION 19 months

PERSON SENDING THIS NOTICE Stephen Thomas

TITLE OF PERSON SENDING THIS NOTICE Project Manager

DATE NOTICE SENT TO STATE MINE INSPECTOR August 24, 1984

*A.R.S. Section 27-303 NOTIFICATION TO INSPECTOR OF BEGINNING OR SUSPENDING OPERATIONS: When mining operations are commenced in any mine or when operations therein are permanently suspended, the operator shall give written notice to the inspector at his office prior to commencement or suspension of operations.

we
Western States Minerals Corporation

4975 Van Gordon Street
Wheat Ridge, Colorado 80033
(303) 425-7042

PORTLAND MINE

STATE MINE INSPECTOR

AUG 27 1984

August 24, 1984

Office of State Mine Inspector
705 West Wing, Capitol Building
Phoenix, Arizona 85007

Gentlemen:

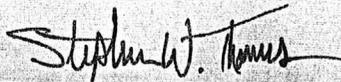
Please find enclosed a completed notice of intent to operate for the Western States Portland Joint Venture. Western States Minerals Corporation has taken over the operating responsibility for the Portland Mine near Kingman, Arizona from Jorinex Exploration and Mining, Inc. and plans to resume operations sometime in September 1984.

We intend to develop a good working relationship with the State Mine Inspectors Office and to operate the property in a safe and competent manner.

If you have any questions concerning our operation please contact either myself at (303) 425-7042 or Mr. Bob Wallin-Mine Superintendent at (602) 757-2184.

Very truly yours,

WESTERN STATES MINERALS CORPORATION



Stephen W. Thomas
Project Manager

SWT:kp

Enclosure

cc: Bob Wallin - WSMC

RESOURCES

unds



RETURNED TO DIVIDER

REASON CHECKED

Unclaimed

Unknown

Insufficient address

Moved. List new address

No such office in state

Do not mail in this envelope

POSTAGE DUE 2 CENTS

Mr. J.A. Potter
 Kingman,
 Arizona

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

July 10, 1958

To the Owner or Operator of the Arizona Mining Property named below:

Portland Gold Mine (Mohave County)	Gold, some silver
<hr/> (Property)	<hr/> (ore)

We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

Frank P. Knight

FRANK P. KNIGHT,
Director.

Enc: Mine Owner's Report

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

INDEXED
MICROFILMED

JOAN McCALL



County Recorder

By [Signature] Deputy Recorder

on JAN 13 1981 - 8 00 AM
IN BOOK 684 OF OFFICIAL RECORDS at
.....M.,
Pages 160-161

Fee \$3.00

Indexed	Photostat Compared	Blotted
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Ret Perry Durning
Fischer-Walt Mining
114 Tucker #2
Kingman Az, 86401

LOCATION NOTICE
(Lode)

NOTICE IS HEREBY GIVEN that the Better Luck lode mining claim has been located by Carl E. Fischer, whose address is P.O. Box 2542 Billings, Mont. This claim is 1500 feet in length and 600 feet in width. The general course of this claim is north-south and it is situated in the Weaver Mining District, Mohave County, Arizona. The location monument is situated at the northeast corner of this claim. This claim runs from the location monument on which this notice is posted 30 feet in a northerly direction to the North end line and 1470 feet in a southerly direction to the South end line and is also marked by six monuments, one at each corner and at the center of each end line of the claim, making the claim in the form of a parallelogram. The location monument at which this notice is posted is situated within Section 14, T. 23N, R. 21W, G.&S.R.M., and this claim encompasses portions of the quarter section, subdivision(s), Section(s), Township and range as follows: SW 1/4 Sec. 14, NW 1/4 Sec. 14
T. 23N R21W

The locality of this claim with reference to some natural object or permanent monument and additional information (if any) concerning its locality are as follows:

the location notice is posted approximately 2550' N + 670' E of section corners common to 14-15-22-23.

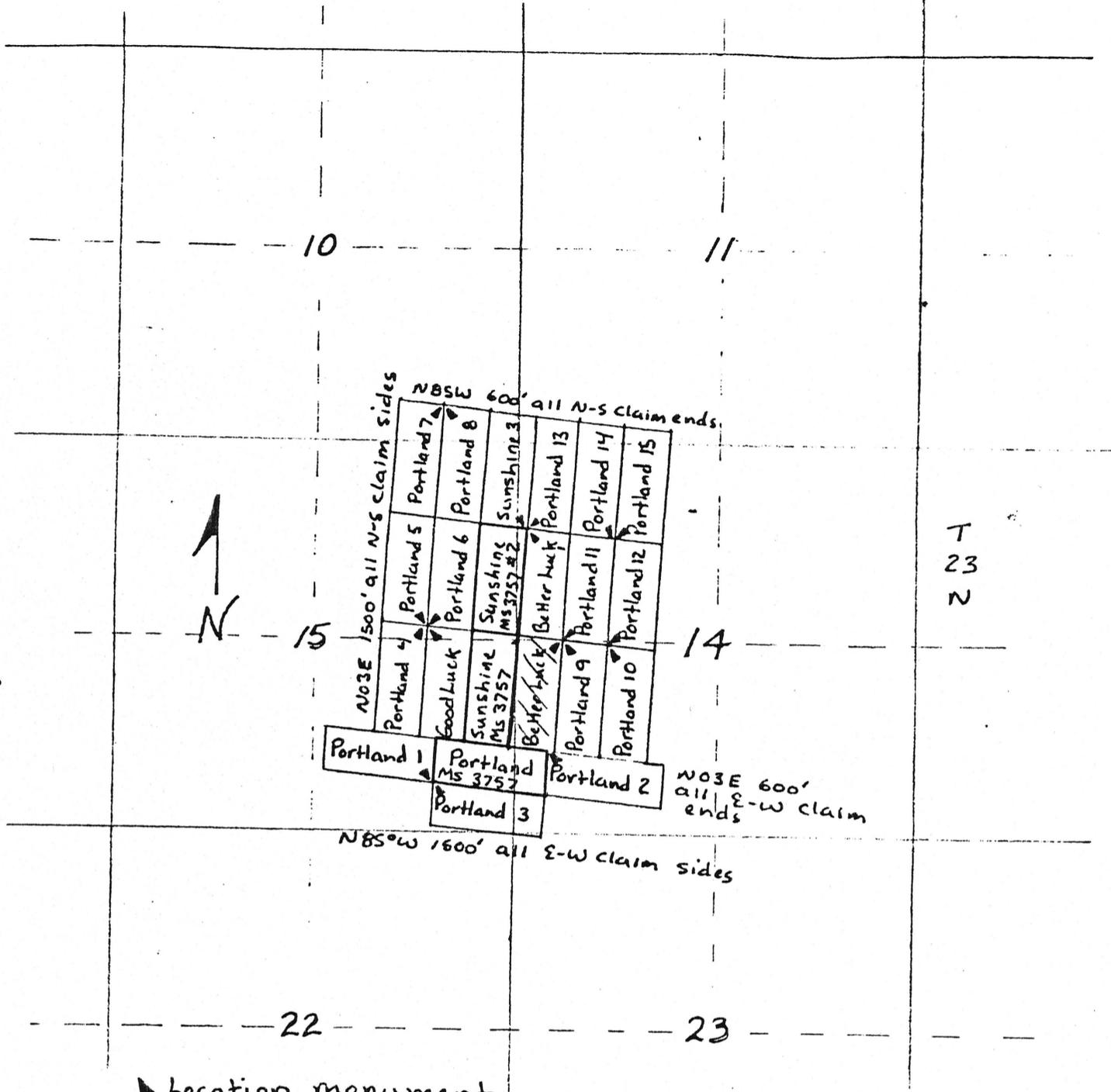
DATED AND POSTED on the ground this 27th day of October, 1980

Witnesses: Perry Durning

Locator(s) Don B. Muehler
(Agent for Locator)

Map of Lode Claims

R 21 W



▲ Location monument

Name of claim Better Luck

Type of Claim Lode Claim

Claim situated in Mohave County, Arizona

Type of corner and location monuments used - 2" x 2" x 5' wooden posts.

0 1,000 2,000 ft.

Scale: 1" = 2,000'