CONTACT INFORMATION
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Arizona Geological Survey
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GROUNDWATER QUALITY PROTECTION
PERMIT NO. G-0011-15

STATE OF ARIZONA

GROUNDWATER QUALITY PROTECTION PERMIT

Part I. AUTHORIZATION FOR FACILITY OPERATION SUCH THAT GROUNDWATER QUALITY OF THE STATE OF ARIZONA IS NOT ADVERSELY IMPACTED.

In compliance with the provisions of A.R.S. 36-1851 et seq; A.A.C. Title 9, Chapter 20, Article 2; A.A.C. Title 9, Chapter 21, Article 2; and conditions set forth in this permit:

Facility Name:	Owner:
Copperstone Project	Cyprus Copperstone Gold Corp. 7200 South Alton Way P. O. Box 3299 Englewood, Colorado 80155

is authorized to operate the Copperstone Project, a facility located approximately 18 miles south of Parker, Arizona in La Paz County over groundwaters of the La Posa Subbasin within the Parker Basin in: Parts of Sections 12 and 13, Township 6 North, Range 20 West, and Section 18, Township 6 North, Range 19 West, the Gila and Salt River Base Line and Meridian.

This permit shall become effective on the date of signature and shall be valid for ten (10) years including operation and closure provided that the facility is operated and maintained in compliance with the specific conditions, general conditions, and information documented or referenced in Parts I, II, III and IV of this Permit and such that groundwater quality standards are not violated (Part V).

_____

Signed this ____ day of

_____ 19 ___

_____

Gerald Teletzke, Director
Arizona Department of Environmental Quality

Signed this ____ day of

_____ 19 ___

Part II. SPECIFIC CONDITIONS (R9-20-208.C.)

A. Containment/Disposal Requirements

1. Containment Requirements

The operator is authorized to operate a hydrometallurgical, precious-metal recovery facility utilizing a closed circuit cyanide vat leaching method. The facility consists of: An open pit mine, overburden and waste disposal area, a mill and cyanide vat leach processing facility, a tailings drying and disposal area and office facilities. The facility shall be constructed and maintained in such a manner as to prevent discharge of pollutants to the land surface or subsurface.

a. Mine

The Copperstone Mine shall extend no deeper than the groundwater level without amending this permit. Waste rock and overburden shall be disposed of near the excavation site.

b. Processing

Processing of ore, which includes crushing and grinding followed by cyanide leaching and carbon in pulp (CIP) absorption, shall be conducted in such a manner as to prevent any solutions containing pollutants from reaching the vadose zone. Containment facilities for the ore processing portion of the facility shall be sufficient to hold the processing fluids from the largest vessel within each drainage area or the precipitation from a 100-year/24-hour rainfall event plus at least 10%. The containment area shall also be underlain by geomembrane seepage barriers. The operation shall be designed, operated, and maintained as described in the Notice of Disposal and submittals received November 6, December 8, 1986 and May 18, June 1, June 8, June 18, June 23 and June 25, 1987 referenced and incorporated hereto.

c. Tailings Disposal

Tailings shall be permanently stored in a zero discharge disposal area. The tailings shall be transferred from the processing facility to the lined disposal area by a pipeline underlain by 30-mil geomembrane liner. In the event of tailings pump failure, fluid in the line shall be captured in a lined recovery pond at the low point of the line. The tailings drying area shall be underlain

by 40-mil PVC geomembrane and ultraviolet resistant geomembrane in areas exposed to sunlight. The tailings facility shall include perimeter berms, interior berms to separate the disposal area into six cells and a central fluid collection rock drain leading to a lined reclaim/runoff pond. The reclaim pond shall be lined first with 30-mil PVC, a drainage netting, followed by 30-mil ultraviolet resistant geomembrane (XR-5). The leak detection system shall be located beneath the first liner and above the lower liner. The reclaim pond shall be constructed and maintained to contain 72-hours of process water plus all of the flow onto all portions of the tailing disposal facility from a 100-year/24-hour, precipitation event. The entire facility shall be constructed in such a manner to be stable and to prevent discharge of fluids to the land surface or subsurface.

d. Facility Protection

The facility shall be surrounded by berms and drainage ditches to prevent overland flow as a result of a 100-year/24-hour rainfall event from affecting any portion of the facility.

e. Bulk Chemical Storage

The processing chemicals stored at the facility include sodium cyanide, calcium oxide, sodium hydroxide, nitric acid, hydrochloric acid, fluxes (silica, sand, borax, and florspar), and calcium hypochlorite. Each chemical shall be stored within a containment area and apart from one another, clearly labeled, fenced and protected from the weather. Emptied reagent containers shall be either triple rinsed and stored on-site until disposal at an approved landfill or returned to the reagent supplier.

2. Disposal Methods

a. Domestic Sewage System

Domestic sewage generated by an estimated 60 employees shall be disposed of to a septic system consisting of a 2,400-gallon septic tank and the associated leach lines.

b. Unauthorized Materials

(1) Materials authorized to be disposed through the septic system are typical domestic sewage and shall not include laboratory

wastes, motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, or other materials not generally associated with toilet flushing, food preparation, laundry facilities, and personal hygiene.

(2) Adequate supervision and operation shall be performed to ensure that all users of the facility are aware of and understand the containment disposal requirements of Part II.A.1.

(3) No commercial operations utilizing hazardous materials or creating hazardous wastes shall dispose of such materials into these systems.

(4) Sludge and scum levels in the septic tanks shall be measured annually and the sludge pumped out where the sludge level is within 8 inches of the bottom of the outlet device or the scum is within 3 inches of the bottom of the outlet device. The sludge shall be disposed in an off-site facility approved by ADEQ for disposal of this type of material.

3. Discharge Source Limits

There shall be no discharge of pollutants that violate the State of Arizona Groundwater Quality Standards (R9-21-401, et seq).

a. Total waste flow from the septic system shall not exceed 1,500 gallons for any given day over an effective area of 800 acres. All septic tanks and leach lines pits must be constructed and located as indicated on a site plan as submitted to ADEQ and approved by the Technical Review Unit or La Paz County Health Department.

b. There shall be no discharge of fluids or materials from the processing or tailings disposal areas. To ensure that there is no discharge, the leak detection system required by Part II. Section A.1.c. shall be monitored as described in Part II, Section B.1. of this permit. If the following constituent total concentrations are exceeded in flows greater than 1-gallon per minute after the first six weeks of monitoring, the operator shall initiate the contingency plan contained in Part II, Section C of this permit.

Constituent	Limits
Cyanide	10 mg/l
Arsenic	5 mg/l
Barium	100 mg/l
Cadmium	1 mg/l
Chromium	5 mg/l
Lead	5 mg/l
Nitrate	10 mg/l
Selenium	1 mg/l
Silver	5 mg/l

c. The tailings disposal area must be capped with at least 2-feet of native rock or soil or at the time of closure the tailings themselves must be equal to or less than the following constituent concentrations. The tailings material shall be analyzed utilizing EPA approved test methods (Test Methods for Evaluating Solid Waste, SW-846, 2nd Edition) for the constituents listed in Part II, Section A.2.b. by a laboratory approved by the State of Arizona and results reported to ADEQ.

Constituent	Limits
Cyanide	10 mg/l
Arsenic	5 mg/l
Barium	100 mg/l
Cadmium	1 mg/l
Chromium	5 mg/l
Lead	5 mg/l
Nitrate	10 mg/l
Selenium	1 mg/l
Silver	5 mg/l

3. Modifications

This permit is issued contingent upon the above conditions. The permittee shall give niney (90) days written advanced notice to the Department of any modifications to the above facility.

4. Other Laws and Rules

The operator must maintain compliance with all other State of Arizona laws and rules. The issuance of this permit does not waive any state, county or local government rules, regulations or permits for which this facility may have to comply.

B. Monitoring Requirements, Record Keeping (R9-20-215)

1. Leak Detection Monitoring

The operator shall conduct monitoring to determine if leaks have developed in the containment system which would affect the quality of groundwater.

a. Prior to start-up of the facility, the operator shall perform system leak detection utilizing clean water. This system-wide check shall verify that all facilities function as designed and to detect leaks, if any, in the ball mill, all processing tanks, piping, pump connections, trenches, disposal pad and ponds.

b. During ore processing and tailings disposal the facilities shall be monitored as follows:

(1) In-plant monitoring shall consist of daily visual monitoring of all tanks and lines.

(2) In addition, quarterly static testing of the vat leach tanks shall be accomplished by measuring water elevation changes while the tank is inactive over an eight-hour period.

(3) Entire system operations shall be checked daily to verify that the steady-state reclaim water flow is equivalent to the application rate of tailings fluid, allowing for evaporation and retention by the tailings.

(4) Monthly sampling of the tailings fluid shall be conducted and analyzed for the indicator parameters listed in Part II, Section A.3.c. of this permit.

(5) For the first six weeks of operation, the reclaim/runoff pond leak detection system shall be checked twice daily for the presence of collecting fluid.

(6) After the initial six-week period, the reclaim/runoff sump as specified in Part II, Section A.1.c. of this permit, shall be monitored daily for the presence of fluid. If fluid is present, it shall be pumped back to the reclaim pond. If fluid persists for six weeks, a sample of the fluid shall be taken and analyzed for the parameters listed in Part II, Section A.3.b. of this permit. Any fluid collected shall be analyzed by standard field methods for pH and free cyanide. A log of these results shall be submitted to ADEQ in accordance with Part II, Section B.2,3 and 4 of this permit and

kept at the facility available for inspection by Department personnel. Manufacturer's Quality Assurance/Quality Control Procedures for instrument operation shall be adhered to for each measuring instrument. Calibration shall be performed prior to sample analysis and noted on the log along with the instrument model numbers. Any modifications or repairs to the instruments shall also be noted on the log.

b. Other Monitoring

The point of compliance shall be a downgradient, monitoring well, located at B-_____ and registered as Department of Water Resources #_____, at the mine site boundary. The well shall be monitored quarterly for the following constituants:

Constituent	Limits
Cyanide	Reserved*
Arsenic	Reserved*
Barium	Reserved*
Cadmium	Reserved*
Chromium	Reserved*
Lead	Reserved*
Nitrate	Reserved*
Selenium	Reserved*
Silver	Reserved*

*Reserved means that the groundwater limits for these constituants shall be based on the greater of either the MCL (Maximum Contaminant Limit, the basis for Drinking Water Standards) or the ambient water quality. The ambient water quality shall be based on the arithmetic mean of the first year's data plus two standard deviations. If the arithmetic mean is less than the MCL, the MCL shall be the limit.

No wastewater effluent monitoring is required for this facility.

2. Quarterly Status Reports

The operator shall prepare a quarterly statement of the status of the operation, any remedial activities undertaken and analytical results for that quarter.

3. Monitoring Forms

All analytical results shall be recorded and reported on the computer coded Self-Monitoring Report Forms supplied by ADEQ. This form should be given to the laboratory performing the analysis.

4. Reporting Frequency

Monitoring results for the previous quarter shall be postmarked no later than the 28th day of the month following the completed reporting period as follows:

Self-Monitoring Report Forms for:	are due by
1st Quarter (Jan, Feb, Mar)	Apr 28
2nd Quarter (Apr, May, Jun)	Jul 28
3rd Quarter (Jul, Aug, Sep)	Oct 28
4th Quarter (Oct, Nov, Dec)	Jan 28

All laboratory reports shall be submitted to the following location:

Arizona Department of Environmental Quality
OWWQM - Compliance Section
2005 North Central Avenue
Phoenix, Arizona 85004

C. Contingency Requirements (R9-20-206.D.2.)

1. If any processing area other than the reclaim/runoff pond shows leakage based on the field monitoring described in Part II, Section B.1.a. of this permit, repairs shall be conducted in accordance with the design engineer's or the manufacturer's recommended procedures. Monitoring shall be conducted to ensure proper repairs were made.

2. If flows into the reclaim pond sump persist and it cannot be demonstrated to the satisfaction of the ADEQ that the leakage in the first liner will be less than one gallon per minute within the first six weeks of operation (1,440 gallons per day to the secondary lined system), an investigation of possible sources of the seepage shall be initiated immediately. The investigation must include reducing the fluid level in the reclaim pond to allow inspection of the liner and all seams, and may include at the discretion of ADEQ, installation of angled drill holes at the perimeter of the pond for monitoring moisture profiles. Based on the results of the investigation, a remedial action plan shall be developed and submitted to ADEQ for its approval. The approved plan shall be implemented within one week of ADEQ approval.

3. In the event that any portion of the containment system fails resulting in the violation of permit conditions, the owner/operator shall notify the Department's Water Pollution/UST Compliance Unit, adjacent landowners and the La Paz County Health Department within 72 hours to determine the appropriate action to mitigate the effects of the violation.

4. To deactivate cyanide solution, the operator shall maintain on-site 500 pounds of calcium hypochlorite and have access to larger quantities within one day to deactivate all cyanide solutions within the system. If the failure of the system should result in probable or inevitable overflow of any portion of the containment system, the calcium hypochlorite shall be applied in quantities in excess of the amount required for complete cyanide neutralization.

D. Post-Closure Plan (R9-20-206.D.3. and R9-20-216.C.2.)

Upon permanent closure of the mine, the processing facility, and/or the tailings disposal area, the operator shall adhere to the following procedures for closure for both solutions and solids disposal:

1. Solutions

   a. Clean water shall be circulated throughout the system for at least 24 hours.

   b. Collect a sample from the reclaim pond and analyze it in accordance with the procedures outlined in Section B.1.a. If the free cyanide is present in concentrations greater than 0.2 mg/l, proceed to step "c" below, if less than 0.2 mg/l proceed to step "d" below.

   c. Maintaining the pH at 10 or higher, add 10% hypochlorite solution to the pond and spray the tailings disposal area with the solution for a seven-day period.

   d. Collect a sample of the rinsate from the pond, and have it analyzed for free cyanide by a State certified laboratory. The laboratory used should be contacted prior to sampling for the proper sampling and preservation techniques. If free cyanide is present in concentration greater than 0.2 mg/l, repeat step "c" above.

   e. Allow all solutions to evaporate from the tanks and collection areas. Any remaining residues or sludges shall be analyzed by EPA approved test

methods (Test Methods for Evaluating Solid Waste, SW-846, 2nd Edition) for the constituents listed in Part II, Section A.2.b., and result reported to ADEQ.

2. Solids

a. At the time of disposal the operator must assure that the material will be properly capped or that the constituent concentrations of the disposal are less than or equal to the concentrations listed in Part II, Section A.2.b. The tailings material shall be covered with a cap of at least two (2) feet of non-toxic, native rock and soils. Also capping of the tailings disposal area shall be shaped to shed water at closure. If the tailings are not capped, a representative cross section of the tailings shall be collected and analyzed as delineated in Section D.1. above. The results shall be submitted to the Office of Waste and Water Quality Management, Water Permits Unit to determine the appropriate action to follow in closing the area. The area surrounding the pond-tailings shall be graded to preclude the migration of tailings off-site during a 100-year/24-hour flood event.

b. All remaining reagents will be sold, neutralized, or disposed of at waste sites approved by the State of Arizona to receive such wastes. Empty chemical containers shall be neutralized and returned to the supplier or disposed of at a landfill approved by the State of Arizona for this type of disposal.

c. The permittee shall follow the requirements for reporting per R9-20-216.C.

3. Septic Tanks

All sewage shall be removed from the septic tank. The top cover over the septic tank shall be removed and the septic tanks shall be completely filled with earth, sand, gravel or concrete to the level of the top of the ground. ADEQ Water Pollution/UST Compliance Unit shall be notified in writing within 10 working days after the abandonment of the septic tank.

E. Compliance Schedule (R9-20-219)

No special requirements.

DEPARTMENT OF WATER RESOURCES (DWR)
99 East Virginia
PHOENIX, ARIZONA 85004

APPLICATION FOR A PERMIT TO DRILL OR OPERATE A NON-EXEMPT, NON-SERVICE AREA WELL WITHIN AN ACTIVE MANAGEMENT AREA, PURSUANT TO A.R.S. §45-599.

INSTRUCTIONS:

I 1. This Application should be used to obtain a permit to:

(a) Drill a non-exempt well in conjunction with a General Industrial Use, Groundwater Withdrawal Permit, or a Certificate of Grandfathered Rights.

(b) Convert (enlarge) an existing well to a non-exempt use.

2. CITIES, TOWNS, PRIVATE WATER COMPANIES OR IRRIGATION DISTRICTS WISHING TO DRILL OR OPERATE A SERVICE AREA WELL SHOULD USE DWR FORM 55-64-3/84.

3. Complete all appropriate items on this application, sign in the appropriate place and mail to 99 East Virginia, Suite 100, Phoenix, Arizona 85004.

4. Application fee is $20.00. A permit fee of $30.00 will be requested when permit is approved for issue.

5. If multiple wells are involved or if the proposed design pump capacity is in excess of 500 gallons per minute, the applicant must attach a hydrological study which delineates projected declines in water levels due to the operation of the proposed well or wells as required by Department Rule R12-15-830.

Applicant A.F. Budge (Mining) Limited

Address 7340 E. Shoeman Lane, Suite 111"B" (E)

City Scottsdale State AZ Zip 85251

Telephone 945-4630

Land Owner V.M.P., Inc. c/o Larry W. Beal

Address 1414 E. Purdue

City Phoenix State AZ Zip 85020

Telephone n/a

Driller n/a Dept. License _____

City _____ State _____ Zip _____

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

Application No. 55-_____
(Registration)
Permit No. T-_____
File No._____
Filed _____ By _____
Date of Receipt of Complete and Correct Application
_____ By _____
Input _____ By _____
Permit Mailed _____ By _____
AMA _____
W/S _____ S/B _____

II DATA ON PROPOSED WELL:

1. Applicant is: _____ Owner xx Lessee

2. Proposed Well is:

New Well ☐
Conversion (enlargement) of an Existing Well ☒
Replacement Well in new location ☐

3. Claim of entitlement to withdraw groundwater is based upon:

☐ Certificate of Grandfathered Right. Certificate 58_____
☐ Groundwater Withdrawal Permit. Permit P-_____
☒ Application for General Industrial Use, Groundwater Withdrawal Permit. Application No. 55-_____

4. Specific Well data:

WELL LOCATION

Township 6 N
Range 5 W
Section 31
NW ¼, SW ¼, NW ¼,

5. County Maricopa Type of casing steel pipe
Depth 714 ft. Diameter 6 in. Design pump capacity 75 gallons per minute

6. Proposed annual volume 100 acre feet

7. The principal use(s) of groundwater will be (be specific) Operation of a gold processing facility

DWR-55-63-8/86 (Revised)

8. Estimated time to complete the well_____. (If longer than one year, attach explanation.)

9. Well is located in the _____sub-basin of the _____ Active Management Area.

10. Groundwater will be used in the _____basin of the _____ Active Management Area.

11. Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility or storage area of hazardous materials? Yes__ No__ If yes, a request for a variance must accompany this application pursuant to R12-15-820.

III DATA FOR REPLACEMENT WELL:

12. DWR registration number of the existing well is 55-_____. Location of the original well: _____¼,_____¼,_____¼ of Section _____, Township_____, Range_____, Depth_____feet, diameter_____ inches.

13. Distance between existing well and replacement well is _____feet.

14. Will the existing well(s) be abandoned if applicant receives this permit to drill a well?_____ If answer is yes, Form DWR 55-46-12/83 must be submitted to this Department within 30 days after abandonment. If answer is no, explain the planned use of the existing well(s):_____

IV DATA FOR CONVERSION OF EXISTING WELL:

15. DWR registration number of the existing well is 55-800940-L. The present pump design capacity of the existing well is 75 gallons per minute.

16. The new design pump capacity will be 75 gallons per minute.

17. The well will pump 100 acre feet per annum.

18. The existing well has previously been used in conjunction with or for the following: Supply of domestic water to one household and stock tanks.

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2,) The permittee will be bound by the provisions of such law and the provisions of the permit issued.

Signature of Applicant Ben F. Dickerson Date November 14, 1986

Ben F. Dickerson III, Agent

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER
for a
GENERAL INDUSTRIAL USE WITHIN AN ACTIVE MANAGEMENT AREA
(ARS 45-515)

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No. _____
(Registration)
Permit No. _____
File No. _____
Filed _____ By _____
Input _____ By _____
Duplicate
Mailed _____ By _____
AMA _____

II GENERAL DATA:

1. NAME OF APPLICANT A.F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111"B"(E), Scottsdale, AZ 85251 945-4630
Mailing address City State Zip Code Telephone Number

2. Applicant is _____ Owner x Lessee _____ Other (explain) _____

3. Well is located in the Hassayampa sub-basin of the Phoenix Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn.
If same as applicant, check this box ☐
V.M.P., Inc., 1414 E. Purdue, Phoenix, AZ 85020
Name Address City State Zip

5. Legal description of the land on which the groundwater will be used.
Patented and unpatented claims located in Maricopa County, G&SRM,
Sections 1,6,31, 35, 36 Township 5&6 N/~~S~~ Range 5&6 ~~E~~/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐
V.M.P.,Inc. 1414 E. Purdue Phoenix, AZ 85020
Name Address City State Zip

7. The specific purpose for which groundwater will be withdrawn: _____
A heap leach gold mining operation

8. Amount of groundwater for which application is being made:
100 acre feet per year for 5 years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $5,100 per Acre-foot

DWR-55-56-12/83

10. Attach proof of denial of service or inaction on a service request by a city, town, or private water company if the location of the applicant's intended use is within three miles of the exterior boundaries of the service area of such city, town or private water company. (Attach supporting documentation.) This is not required for an expanded animal industry use as defined in ARS §45-402.

11. Attach studies of the probable hydrologic impact on the groundwater resources which the applicant proposes to use, including evidence of the availability of an assured water supply for the intended use.

12. Applicant proposes to withdraw groundwater from:

1 Existing well or wells Registration No(s). 55- 800940-L 55-_____
_____ New well or wells

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well: _____ ¼ _____ ¼ _____ ¼ of Section _____
Township _____ N/S Range _____ E/W.

2. Owner of well (if same as applicant) check this box ☐

_____
Name Address City State Zip

3. Depth of well: _____ feet

4. Diameter of casing: _____ inches

5. Type of casing _____

6. Design pump capacity _____ GPM

7. Construction will start about: _____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
DWR License Number

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS §45-598. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of the permit issued pursuant hereto.

I, Ben F. Dickerson III state that the information contained in this application is true and correct to my best belief and knowledge.

November 14, 1986
Date

Ben F. Dickerson III
Signature of Applicant

Ben F. Dickerson III, Agent

DEPARTMENT OF WATER RESOURCES (DWR)
99 East Virginia
PHOENIX, ARIZONA 85004

APPLICATION FOR A PERMIT TO DRILL OR OPERATE A NON-EXEMPT, NON-SERVICE AREA WELL WITHIN AN ACTIVE MANAGEMENT AREA, PURSUANT TO A.R.S. §45-599.

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(b) Convert (enlarge) an existing well to a non-exempt use.

2. CITIES, TOWNS, PRIVATE WATER COMPANIES OR IRRIGATION DISTRICTS WISHING TO DRILL OR OPERATE A SERVICE AREA WELL SHOULD USE DWR FORM 55-64-3/84.

3. Complete all appropriate items on this application, sign in the appropriate place and mail to 99 East Virginia, Suite 100, Phoenix, Arizona 85004.

4. Application fee is $20.00. A permit fee of $30.00 will be requested when permit is approved for issue.

5. If multiple wells are involved or if the proposed design pump capacity is in excess of 500 gallons per minute, the applicant must attach a hydrological study which delineates projected declines in water levels due to the operation of the proposed well or wells as required by Department Rule R12-15-830.

Applicant A.F. Budge (Mining) Limited

Address 7340 E. Shoeman Lane, Suite 111"B"(E)

City Scottsdale State AZ Zip 85251

Telephone 945-4630

Land Owner V.M.P., Inc. c/o Larry W. Beal

Address 1414 E. Purdue

City Phoenix State AZ Zip 85020

Telephone n/a

Driller n/a Dept. License _____

City _____ State _____ Zip _____

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

Application No. 55-_____
(Registration)
Permit No. T-_____
File No. _____
Filed _____ By _____
Date of Receipt of Complete and Correct Application
_____ By _____
Input _____ By _____
Permit Mailed _____ By _____
AMA _____
W/S _____ S/B _____

II DATA ON PROPOSED WELL:

1. Applicant is: _____ Owner xx Lessee

2. Proposed Well is:

New Well ☐
Conversion (enlargement) of an Existing Well ☒
Replacement Well in new location ☐

RECEIVED NOV 17 1986 DEPT. OF WATER RESOURCES

3. Claim of entitlement to withdraw groundwater is based upon:

☐ Certificate of Grandfathered Right. Certificate 58_____

☐ Groundwater Withdrawal Permit. Permit P-_____

☒ Application for General Industrial Use, Groundwater Withdrawal Permit. Application No. 55-_____

4. Specific Well data:

WELL LOCATION

Township 6 N
Range 5 W
Section 31
NW ¼, SW ¼, NW ¼,

5. County Maricopa Type of casing steel pipe
Depth 714 ft. Diameter 6 in. Design pump capacity 75 gallons per minute

6. Proposed annual volume 100 acre feet

7. The principal use(s) of groundwater will be (be specific) Operation of a gold processing facility

8. Estimated time to complete the well_____. (If longer than one year, attach explanation.)

9. Well is located in the _____sub-basin of the _____ Active Management Area.

10. Groundwater will be used in the _____basin of the _____ Active Management Area.

11. Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility or storage area of hazardous materials? Yes__ No__ If yes, a request for a variance must accompany this application pursuant to R12-15-820.

III DATA FOR REPLACEMENT WELL:

12. DWR registration number of the existing well is 55-_____. Location of the original well: _____¼,_____¼,_____¼ of Section _____, Township_____, Range_____, Depth_____feet, diameter_____ inches.

13. Distance between existing well and replacement well is _____feet.

14. Will the existing well(s) be abandoned if applicant receives this permit to drill a well?_____ If answer is yes, Form DWR 55-46-12/83 must be submitted to this Department within 30 days after abandonment. If answer is no, explain the planned use of the existing well(s):_____

IV DATA FOR CONVERSION OF EXISTING WELL:

15. DWR registration number of the existing well is 55- 800940-L . The present pump design capacity of the existing well is 75 gallons per minute.

16. The new design pump capacity will be 75 gallons per minute.

17. The well will pump 100 acre feet per annum.

18. The existing well has previously been used in conjunction with or for the following: Supply of domestic water to one household and stock tanks.

V It is understood that the permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2,) The permittee will be bound by the provisions of such law and the provisions of the permit issued.

Signature of Applicant Ben F. Dickerson Date November 14, 1986

Ben F. Dickerson III, Agent

Rosemary Hester
255-1581

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER FOR MINERAL EXTRACTION & METALLURGICAL PROCESSING WITHIN AN ACTIVE MANAGEMENT AREA

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issue of permit.
5. Use explanatory section on back for clarification, if necessary.
6. Use this form for sand and gravel operations.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No. _____
Permit No. _____
File No. _____
Filed _____ By _____
Input _____ By _____
Duplicate
Mailed _____ By _____
AMA _____ S/B ___ W/S ___

II GENERAL DATA

1. NAME OF APPLICANT: A.F. Budge (Mining) Limited

   7340 E. Shoeman Lane, Suite 111"B"(E), Scottsdale, AZ 85251 945-4630
   Mailing address City State Zip Code Telephone number

2. Applicant is ____ Owner xx Lessee ____ Other (explain) _____

3. Groundwater will be withdrawn within the Hassayampa sub-basin of the Phoenix Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn. If same as applicant, check this box ☐
   V.M.P., Inc. 1414 E. Purdue, Phoenix, AZ 85020
   Name Address City State Zip

✓5. Legal description of the land on which the groundwater will be used.
   Patented and unpatented claims located in Maricopa County, G&SRM,
   Sections 1,6,31,35 & 36 Township 5,6 N/X Range 5,6 X/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐
   V.M.P., Inc. 1414 E. Purdue, Phoenix, AZ 85020
   Name Address City State Zip

✓7. The specific purpose for which groundwater will be withdrawn:
   A heap leach gold mining operation

8. Amount of groundwater for which application is being made:
   100 acre feet per year for 5 years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $5100/ac.ft

10. Has applicant previously been granted a dewatering permit? No If so, what is the amount of groundwater available to the applicant under the terms of this permit? ____

11. Applicant proposes to withdraw groundwater from:

__1__ existing well or wells. Registration No.(s) 55-800940-L ; 55-_____.

____ new well or wells.

____ other (specify: mine shaft, etc) Point of withdrawal is within ____¼,____¼,____¼ Section _____; Township_____N/S; Range _____E/W.

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well: _____¼_____¼_____¼ of Section _____

   Township_____N/S Range_____E/W.

2. Owner of well (if same as applicant) check this box ☐

_____

Name Address City State Zip

3. Depth of well:_____feet

4. Diameter of casing:_____inches

5. Type of casing_____

6. Design pump capacity_____GPM

7. Construction will start about:_____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
Dept. of Water Resources license number.

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS 45-598 and 45-599. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of a permit issued pursuant hereto. This is also to advise that uncommitted municipal and industrial Central Arizona Project water is not available at the point where the operator's well head or distribution system would otherwise be, at a cost which does not exceed the current municipal and industrial CAP delivery rates and that surface water or effluent of adequate quality is not available within the cost schedule established by ARS 45-514 A-3.

I, Ben F. Dickerson III, state that the information contained in this application is true and correct to my best belief and knowledge.

November 21, 1986

Date

_____
Signature of Applicant

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER
for a
GENERAL INDUSTRIAL USE WITHIN AN ACTIVE MANAGEMENT AREA
(ARS 45-515)

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No._____
(Registration)
Permit No._____
File No._____
Filed _____ By_____
Input_____ By_____
Duplicate
Mailed_____ By_____
AMA_____

II GENERAL DATA:

1. NAME OF APPLICANT A.F. Budge (Mining) Limited

   7340 E. Shoeman Lane, Suite 111"B"(E), Scottsdale, AZ 85251 945-4630
   Mailing address City State Zip Code Telephone Number

2. Applicant is_____ Owner x Lessee _____ Other (explain)_____

3. Well is located in the Hassayampa sub-basin of the Phoenix Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn.
   If same as applicant, check this box ☐

   V.M.P., Inc., 1414 E. Purdue, Phoenix, AZ 85020
   Name Address City State Zip

5. Legal description of the land on which the groundwater will be used.

   Patented and unpatented claims located in Maricopa County, G&SRM,
   Sections 1,6,31, 35, 36 Township 5&6 N/~~X~~ Range 5&6 ~~X~~/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐

   V.M.P.,Inc. 1414 E. Purdue Phoenix, AZ 85020
   Name Address City State Zip

7. The specific purpose for which groundwater will be withdrawn:_____

   A heap leach gold mining operation

8. Amount of groundwater for which application is being made:
   100 acre feet per year for 5 years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $5,100 per Acre-foot

10. Attach proof of denial of service or inaction on a service request by a city, town, or private water company if the location of the applicant's intended use is within three miles of the exterior boundaries of the service area of such city, town or private water company. (Attach supporting documentation.) This is not required for an expanded animal industry use as defined in ARS §45-402.

11. Attach studies of the probable hydrologic impact on the groundwater resources which the applicant proposes to use, including evidence of the availability of an assured water supply for the intended use.

12. Applicant proposes to withdraw groundwater from:

__1__ Existing well or wells Registration No(s). 55-800940-L 55-_____
_____ New well or wells

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well: _____ ¼ _____ ¼ _____ ¼ of Section _____
Township _____ N/S Range _____ E/W.

2. Owner of well (if same as applicant) check this box ☐

_____
Name Address City State Zip

3. Depth of well: _____ feet

4. Diameter of casing: _____ inches

5. Type of casing _____

6. Design pump capacity _____ GPM

7. Construction will start about: _____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
DWR License Number

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS §45-598. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of the permit issued pursuant hereto.

I, Ben F. Dickerson III state that the information contained in this application is true and correct to my best belief and knowledge.

November 14, 1986
Date

Ben F. Dickerson III
Signature of Applicant

Ben F. Dickerson III, Agent

A. F. Budge Mining.
7340 E. Shoeman Ln., Ste. 111 "B" (E)
Scottsdale, AZ 85251

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
WATER RIGHTS ADMINISTRATION
99 EAST VIRGINIA
PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
59	516081
	THRU

ACCOUNT NO. FUND SOURCE	AGENCY	CHAPTER	DIV.	INT. ACCT.	ITEM DESCRIPTION	RATE	$ AMOUNT
					Application fee for Permit withdraw groundwater for Hydrologic Testing Purposes within an Active Management Area		50.00
					File No. B(6-5)31 b		
					Registration No. 59-516081		
					Check No. 1386		

FEB 1987 PAID

2/25/87 rh

TOTAL $50.00

12/11/86

Dear Carole,
Please have Mr. Dickerson sign the application and return ASAP to my attn.
Thx!
Rosemary
DWR

DMEA LTD
BEN DICKERSON III
7340 E. SHOEMAN LANE, STE. 111B -E
SCOTTSDALE, AZ 85251

FOR: A. F. BUDGE (MINING) LIMITED

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
WATER RIGHTS ADMINISTRATION
99 EAST VIRGINIA
PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
59	516142
	THRU

ACCOUNT NO. FUND SOURCE	AGENCY	CHAPTER	DIV.	INT. ACCT.	ITEM DESCRIPTION	RATE	$ AMOUNT
					Application fee for Mineral Extraction & Metallurgical Processing within an Active Management Area		50.00
					File No. 8(6-5)31 b		
					Registration No. 59-516142		
					Check No. 1479		

DEC 1986 PAID

12/11/86 rh

TOTAL $ 50.00

SHEARSON LEHMAN BROTHERS

An American Express company

AMERICAN EXPRESS

DMEA LTD
BEN F DICKERSON III
7340 E SHOEMAN LN STE 111B-E
SCOTTSDALE, AZ 85251
9 3 4

1479

Nov 14 1986 3-5/310

Pay to the Order of Department of Water Resources $ 50.00

Fifty and 00/100 Dollars

FINANCIAL MANAGEMENT ACCOUNT
PROVIDENT NATIONAL BANK
17TH & CHESTNUT STREETS, PHILA., PA

T D For Groundwater permit

Ben F. Dickerson III

⑆031000053⑆ 6 200871934⑈ 21479

© HARLAND 1985 BW4

SHEARSON LEHMAN BROTHERS

An American Express company

AMERICAN EXPRESS

DMEA LTD
BEN F DICKERSON III
7340 E SHOEMAN LN STE 111B-E
SCOTTSDALE, AZ 85251
9 3 4

1480

Nov 14 1986 3-5/310

Pay to the Order of Department of Water Resources $ 20.00

Twenty and 00/100 Dollars

FINANCIAL MANAGEMENT ACCOUNT
PROVIDENT NATIONAL BANK
17TH & CHESTNUT STREETS, PHILA., PA

T D For Apple Well operation

Ben F. Dickerson III

⑆031000053⑆ 6 200871934⑈ 21480

© HARLAND 1985 BW4

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

March 18, 1987

State of Arizona
Department of Water Resources
99 East Virginia
Phoenix, AZ 85004
Att'n: Rosemary Hester

Re: Application for Permit to
withdraw Groundwater for
Hydrologic Testing Purposes

Registration No. 59-516981

Dear Rosemary:

Per your telephone request of 3-17-87, I am enclosing our check in the amount of $50.00 for the referenced permit.

Sincerely,

Carole A. O'Brien
Carole A. O'Brien

A. F. BUDGE MINING, LTD.
602-945-4630
7340 E. SHOEMAN LN., STE. 111 "B" (E)
SCOTTSDALE, AZ 85251

1445

91-170
1221

18 March 1987

PAY TO THE ORDER OF State of Arizona Department of Water Resources $ 50.00

---------- Fifty & 00/100 ---------- DOLLARS

THE Arizona BANK
LINCOLN - SCOTTSDALE ROAD OFFICE (055)
6501 NORTH SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85253

MEMO Permit Application 59-516981

Carole A. O'Brien

⑈000 1445⑈ ⑆122101706⑆ 055⑈727178⑈

MESSENGER BANK PRINTERS KA 6/81

Arizona Department of Water Resources

99 East Virginia Avenue
Phoenix, Arizona 85004
(602) 255-1553

Evan Mecham, Governor
Alan P. Kleinman, Director

March 23, 1987

A. F. Budge (Mining) Limited
7340 East Shoeman Lane, Suite 111 "B" (E)
Scottsdale, Arizona 85251-3335

DMEA LTD.
MAR 25 1987
RECEIVED

Registration No. 59-516981
File No. B(6-5)31 b

Dear Permittee:

Enclosed for your records is your permit.

For your future use, a Change of Well Information form is also enclosed. Under A.R.S. §45-593, the person to whom a well is registered must notify this Department of a change in ownership of the well and must furnish the Department any information pertaining to the physical characteristics of the well necessary to keep the well registration records current and accurate. The permit itself may be conveyed only in accordance with A.R.S. §45-520.

Sincerely,

Richard A. Gessner
Chief, Operations Division

RAG: rh
Enclosures

DWR-55-77-4/85 Revised

A. F. Budge Mining, Ltd.
7340 E. Shoeman Lane, Ste. 111"B"(C)
Socttsdale, AZ 85251

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
WATER RIGHTS ADMINISTRATION
99 EAST VIRGINIA
PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
59	516981
	THRU

ACCOUNT NO. FUND SOURCE	AGENCY	CHAPTER	DIV.	INT. ACCT.	ITEM DESCRIPTION	RATE	$ AMOUNT
					Permit Fee for Permit to Withdraw Groundwater for Hydrologic Testing Purposes within an Active Management Area		50.00
					File No. B(6-5)31 b		
					Registration No. 59-516981		
					Check No. 1445		

MAR 1987 PAID

3/23/87 rh

TOTAL $ 50.00

P E R M I T

PERMIT NO. P-516981 FILE NO. B(6-5)31 b

STATE OF ARIZONA REGISTRATION NO. 55-800940

Approval is herein granted, pursuant to A.R.S. 45-519.01, for the Permittee to construct and/or operate a well or wells for hydrologic testing. This approval is expressly limited to the specific location, withdrawal limitations, testing purpose and duration as set forth below. If the Permittee wishes the Department to review the imposition of any of the limitations or special conditions, he may ask for such a review within fifteen (15) days of receipt of this Permit. Such a request must be made prior to the commencement of drilling. The well(s) authorized by this Permit shall be drilled and constructed in accordance with applicable statutes and Department regulations.

Permittee A. F. Budge (Mining) Limited
7340 East Shoeman Lane, Suite 111 "B" (E), Scottsdale, Arizona 85251-3335

Active Management Area Phoenix Subbasin Hassayampa

Authorized purpose of hydrologic testing To determine well productivity capacity and water quality.

Total amount of groundwater to be withdrawn is 0.5 acre feet.

Duration of Permit: From March 17, 1987 to June 17, 1987

Land on which groundwater may be used N/A

Authorized well(s) from which groundwater may be withdrawn:

			Depth	Casing	Case Type
Registration No. 55-	800940	Location B(6-5)31 b	714'	6"	Steel
55-		Location			
55-		Location			
55-		Location			

CONDITIONS OF THE PERMIT:

- The drilling of the well(s) and completion of testing must be accomplished within 90 days from date of the issue of drilling authority.
- Within 60 days upon completion of logging and testing, the permittee shall provide the results of the test data to our Hydrology Division for evaluation.
- This approval for a test well(s) and a pump test does not constitute a commitment by the Department for the granting of a withdrawal permit or converting the test well into a production well.

Witness my hand and seal of office this 17th day of March, 1987.

Herb Dishlip

Herb Dishlip, Deputy Director

DWR-55-80-9/85

DEPARTMENT OF WATER RESOURCES
99 East Virginia Avenue
Suite 100
Phoenix, Arizona 85004

CHANGE OF WELL INFORMATION

Registration Number 55- 800940

I request the following information be changed in Well File Number B(6-5)31 b

Date _____, 19____ _____
Signature of Well Owner

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, _____, state that I am (no longer) the (new) owner of the well described below:

Township_____ Range_____ Section _____, _____¼ _____¼ _____¼

Registration #55-_____ File No. _____

Previous Owner	New Owner
Address	Address
City State Zip	City State Zip

NOTE: ARS §45-593 requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within 30 days after changes take place.

NOTE: SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP OR WELL DATA SUCH AS PUMP CAPACITY, ETC.

DWR-55-51-12/83

Arizona Department of Water Resources

99 East Virginia Avenue
Phoenix, Arizona 85004
(602) 255-1553

Evan Mecham, Governor
Alan P. Kleinman, Director

March 23, 1987

A. F. Budge (Mining) Limited
7340 East Shoeman Lane, Suite 111 "B" (E)
Scottsdale, Arizona 85251-3335

DMEA LTD.
MAR 25 1987
RECEIVED

Registration No. 59-516981
File No. B(6-5)31 b

Dear Permittee:

Enclosed for your records is your permit.

For your future use, a Change of Well Information form is also enclosed. Under A.R.S. §45-593, the person to whom a well is registered must notify this Department of a change in ownership of the well and must furnish the Department any information pertaining to the physical characteristics of the well necessary to keep the well registration records current and accurate. The permit itself may be conveyed only in accordance with A.R.S. §45-520.

Sincerely,

Richard A. Gessner
Chief, Operations Division

RAG: rh
Enclosures

DWR-55-77-4/85 Revised

P E R M I T

PERMIT NO. P-516981 FILE NO. B(6-5)31 b

STATE OF ARIZONA REGISTRATION NO. 55-800940

Approval is herein granted, pursuant to A.R.S. 45-519.01, for the Permittee to construct and/or operate a well or wells for hydrologic testing. This approval is expressly limited to the specific location, withdrawal limitations, testing purpose and duration as set forth below. If the Permittee wishes the Department to review the imposition of any of the limitations or special conditions, he may ask for such a review within fifteen (15) days of receipt of this Permit. Such a request must be made prior to the commencement of drilling. The well(s) authorized by this Permit shall be drilled and constructed in accordance with applicable statutes and Department regulations.

Permittee A. F. Budge (Mining) Limited
7340 East Shoeman Lane, Suite 111 "B" (E), Scottsdale, Arizona 85251-3335

Active Management Area Phoenix Subbasin Hassayampa

Authorized purpose of hydrologic testing To determine well productivity capacity and water quality.

Total amount of groundwater to be withdrawn is 0.5 acre feet.

Duration of Permit: From March 17, 1987 to June 17, 1987

Land on which groundwater may be used N/A

Authorized well(s) from which groundwater may be withdrawn:

			Depth	Casing	Case Type
Registration No. 55-	800940	Location B(6-5)31 b	714'	6"	Steel
55-		Location			
55-		Location			
55-		Location			

CONDITIONS OF THE PERMIT:

- The drilling of the well(s) and completion of testing must be accomplished within 90 days from date of the issue of drilling authority.
- Within 60 days upon completion of logging and testing, the permittee shall provide the results of the test data to our Hydrology Division for evaluation.
- This approval for a test well(s) and a pump test does not constitute a commitment by the Department for the granting of a withdrawal permit or converting the test well into a production well.

Witness my hand and seal of office this 17th day of March, 1987.

Herb Dishlip

Herb Dishlip, Deputy Director

DWR-55-80-9/85

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

mailed 2/19/87

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER
FOR HYDROLOGIC TESTING PURPOSES
WITHIN AN ACTIVE MANAGEMENT AREA

I INSTRUCTIONS

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No. _____
Permit No. _____
File No. _____
Filed by _____ By _____
Input _____ By _____
Duplicate
Mailed _____ By _____
AMA _____ S/B ___ W/S ___

II GENERAL DATA

1. NAME OF APPLICANT A.F. Budge (Mining) Limited

Mailing address 7340 E. Shoeman Lane, Suite 111"B"(E)

Scottsdale	AZ	85251-3335	(602) 945-4630
City	State	Zip Code	Telephone number

2. PURPOSE OF THIS TESTING PERMIT (check only one box)

☐ To obtain groundwater samples not exceeding 3 acre feet per annum for testing groundwater quality in order to comply with applicable environmental controls for a period of up to 10 years. - A.R.S. 45-519.01.A.

☒ To test hydrologic characteristics and conditions, including groundwater quality. Groundwater withdrawn shall not exceed 10 acre feet nor shall the period of withdrawal exceed 90 days. - A.R.S. 45-519.01.B.

☐ To withdraw more than 10 acre feet of groundwater for hydrologic testing purposes, and/or for a period greater than 90 days - include specifics of testing circumstances that require such withdrawal and/or period. - A.R.S. 45-519.01.D.

3. Groundwater will be withdrawn within the Hassayampa sub-basin of the Phoenix Active Management Area.

4. State your plan for disposing of the groundwater withdrawn Water will be chanelled to natural surface drainage.

5. The specific purpose of the hydrologic testing is: To determine well productivity capacity and water quality.

6. Total amount of groundwater for which application is being made: 0.5 acre feet.

7. Proposed duration of the hydrologic testing 2 Days ☒ Months ☐

8. State the testing circumstances that require withdrawals in excess of 10 acre feet or a testing period for more than 90 days: _____

9. Groundwater to be withdrawn by means of:

A. Existing wells:

Registration No.	Location	Depth	Casing	Case Type
55-800 940-L	NW¼,Sec.31,T.6N,R5W	714 ft.	6in. dia.	steel
55-				

B. New wells:

Registration No. (Dept. to Complete)	Location	Depth	Casing	Case Type
55-				
55-				
55-				

10. State your plans for the well(s) after testing is completed: Plans are to use water for a proposed mining operation. Application has been submitted (File Reference No. 59-516142) for Permit to Withdraw Groundwater for Mineral Extraction & Metallurgical Processing.

11. If new well(s) is to be drilled, complete the following information relating to the driller:

Driller's name _____ DWR License No. _____

Address _____

_____

It is understood that the Permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2). The permittee will be bound by the provisions of such law and the provisions of the Permit issued.

Signature of Applicant _____ Date February 19,1987

A.J. Fernandez
Senior Mining Engineer

BUDGE

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

Regarding Question #8

The flow rate of solution through the gold recovery plant will be approximately 150 gpm. Other similar facilities operating in arid climates experience evaporation losses of about 25%. Therefore we anticipate losses of 37.5 gpm or 60 acre-feet per year. This represents nearly all the plant requirements as no water will leave the facility any other way.

Dust control in the mining operation will require approximately 30,000 gallons per day or 34 acre-feet per year. This includes watering of the mine roads and water sprays at the crushing facilities.

This totals 94 acre-feet per year. An additional 6 acre-feet per year is proposed to supply any unforseen requirements.

Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

May 8, 1987

A.J. Fernandez
A.F. Budge (Mining) Ltd.
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ 85241-3335

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

REPORT OF ANALYSIS

ALR Designation Sponsor Designation	9416-24121-1-1 AFB1 4-22-87
Determination: mg/L	
Cyanide	<0.005
Arsenic, total	<0.005
Barium, total	<0.2
Cadmium, total	<0.005
Chromium, total	0.006
Fecal Coliforms, Colonies per 100 mLs	<1
BOD	<2
Lead, total	<0.005
Mercury, total	0.0002
Nitrate (as N)	1.1
Selenium, total	<0.005
Silver, total	0.011
Fluoride	2.8
Pesticides:	
Lindane	<0.004
Endrin	<0.0002
Methoxychlor	<0.1
Toxaphene	<0.005
Herbicides:	
2,4-D	<0.1
2,4,5-TP (Silvex)	<0.01

Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

June 16, 1987

A.J. Fernandez
A.F. Budge (Mining) Ltd.
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ 85241-3335

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

ADDITIONAL ANALYSIS	REPORT OF ANALYSIS
ALR Designation	9416-24121-1-1
Sponsor Designation	AFB1
	4-22-87
Determination: pCi/L	
Radium-226, total, ± counting error*	0.2 ± 0.2
Uranium (as U), total, mg/L	0.050

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 45 days after the date of this report.

Bud Summers
Radiochemistry
Supervisor

BS/dh dh

A.J. Fernandez
A.F. Budge (Mining) Ltd.

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

REPORT OF ANALYSIS

ALR Designation	9416-24121-1-1
Sponsor Designation	AFB1
	4-22-87
Determination: mg/L	
Gross Alpha, total, ± counting error*, pCi/L	22 ± 7
Gross Beta, total, ± counting error*, pCi/L	3 ± 3

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 30 days after the date of this report.

Mary Fabisiak
for Cathy Shugarts
Water Laboratory
Supervisor

Chris Shugarts
Organics Chemistry
Supervisor

Bud Summers
Radiochemistry
Supervisor

CS/CS/BS/dh dh

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

April 22, 1987

Accu-Labs Research, Inc.
11485 W. 48th Avenue
Wheat Ridge, CO 80033

Dear Sir:

Please find enclosed water sample for one site (one set of bottled samples). As per my phone conversation with Tom Balka, these samples are to be analysed for the following:

Cyanide	Lead	Fluoride
Arsenic	Mercury	Endrin
Barium	Nitrate	Lindane
Cadmium	Selenium	Metcxichlor
Chromium	Silver	Toxaphene
2,4,D	2,4,5,TP (Silvex)	
Gross alpha & beta		
Fecal Coloform		
BOD-5		

Please bill and report the results to me at the above address.

Thank you for your prompt attention.

Regards,

A.J. Fernandez
Senior Mining Engineer

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

April 21, 1988

State of Arizona
Department of Water Resources
99 East Virginia
Phoenix, AZ 85004

Attention: Ms. Rosemary Hester

Re: Application for Permit to withdraw Groundwater for Mineral Extraction & Metallurgical Processing

Registration No. 59-516142

Dear Rosemary:

Per our telephone conversation today, I am enclosing a copy of the letter received from the Department of Environmental Quality indicating their Intent to Issue a Groundwater Quality Protection Permit.

I apologize for not sending this as soon as we had received it. Too much work and too little time. Our contractors will be ready to go on site next week.

We would appreciate any assistance you can provide to expedite the issuance of our Permit.

Thank you.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Geologist & Mining Coordinator

encl.(1)

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

April 21, 1988

State of Arizona
Department of Water Resources
99 East Virginia
Phoenix, AZ 85004

Attention: Ms. Rosemary Hester

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I apologize for not sending this as soon as we had received it. Too much work and too little time. Our contractors will be ready to go on site next week.

We would appreciate any assistance you can provide to expedite the issuance of our Permit.

Thank you.

Sincerely,

Carole A. O'Brien

Carole A. O'Brien
Geologist & Mining Coordinator

encl.(1)

A. F. BUDGE MINING, LTD.
602-945-4630
7340 E. SHOEMAN LN., STE. 111 "B" (E)
SCOTTSDALE, AZ 85251

2400

91-17
122

21 April 19 88

PAY TO THE ORDER OF State of Arizona: Department of Water Resources | $ 50.00

---- Fifty & 00/100 ---- DOLLA

THE Arizona BANK A Security Pacific Company

LINCOLN - SCOTTSDALE ROAD OFFICE (055)
6501 NORTH SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85253

MEMO Permit Application 59-516142

Laura A. O'Brien

⑈002400⑈ ⑆122101706⑆ 055⑈727178⑈

MESSENGER BANK PRINTERS XA 6/81

A. F. BUDGE MINING, LTD.
602-945-4630
7340 E. SHOEMAN LN., STE. 111 "B" (E)
SCOTTSDALE, AZ 85251

2400

91-17
122

21 April 19 88

PAY TO THE ORDER OF State of Arizona: Department of Water Resources $ 50.00

---- Fifty & 00/100 ----

DOLLA

THE Arizona BANK A Security Pacific Company

LINCOLN - SCOTTSDALE ROAD OFFICE (055)
6501 NORTH SCOTTSDALE ROAD
SCOTTSDALE, ARIZONA 85253

MEMO Permit Application 59-516142

Laura A. O'Brien

⑈002400⑈ ⑆122101706⑆ 055⑈727178⑈

MESSENGER BANK PRINTERS KA 6/81

A. F. Budge Mining, Ltd.
7340 E. Shoeman Ln., Suite 111"B"(E)
Scottsdale, AZ 85251

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
WATER RIGHTS ADMINISTRATION
99 EAST VIRGINIA
PHOENIX, ARIZONA 85004

RECEIPT

KIND ENTRY	FILE REFERENCE NO.
59	516142
	THRU

ACCOUNT NO. FUND SOURCE	AGENCY	CHAPTER	DIV.	INT. ACCT.	ITEM DESCRIPTION	RATE	$ AMOUNT
					Permit Fee: (1) Permit for Mineral Extraction and Metallurgical Processing	50.00	50.00
					Permit No. 59-516142 (P[		

Ck #2400 dated 4-21-88 (7-5-88,kw)

TOTAL $ 50.00

ARIZONA
DEPARTMENT
OF WATER
RESOURCES

Rose Mofford, Governor
C. Laurence Linser,
Acting Director

99 E. Virginia Avenue
Phoenix, Arizona 85004

July 7, 1988

A. F. Budge (Mining) Ltd.
7340 East Shoeman Lane, Suite 111 "B" (E)
Scottsdale, Arizona 85251

RE: Permit No. 59-516142
Well Registration No. 55-800940

Dear Sirs:

Enclosed for your records is your permit as referenced above.

For you future use, a Change of Well Information form is also enclosed. Under Arizona Revised Statutes §45-592, the person to whom a well is registered must notify this Department of a change in the ownership of the well and must furnish this Department with any information pertaining to the physical characteristics of the well necessary to keep the well registration records current and accurate. The permit itself may only be conveyed in accordance with A.R.S. §45-520.

Very truly yours,

Richard A. Gessner
Chief, Operations Division

RAG:kw

Enclosures

cc: Phoenix Active Management Area

DEPARTMENT OF WATER RESOURCES
99 East Virginia Avenue
Suite 100
Phoenix, Arizona 85004

CHANGE OF WELL INFORMATION

Registration No. 55-800940

I request the following information be changed in Well File Number B(6-5)31 b

_____

_____

_____

_____

_____

_____

Date _____, 19____ _____
Signature of Well Owner

STATEMENT OF CHANGE OF WELL OWNERSHIP

I, _____, state that I am (no longer) the (new) owner of the well described below:

Township_____ Range_____ Section _____, _____¼ _____¼ _____¼

Registration #55-_____ File No. _____

Previous Owner	New Owner
Address	Address
City State Zip	City State Zip

NOTE: ARS §45-593 requires that the Department be notified of change of well ownership and that the well owner is required to keep the Department's Well Registration records current and accurate. Well data and ownership changes must be submitted within 30 days after changes take place.

NOTE: SAVE THIS FORM TO REPORT FUTURE CHANGES IN OWNERSHIP OR WELL DATA SUCH AS PUMP CAPACITY, ETC.

DWR-55-51-12/83

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER FOR MINERAL EXTRACTION & METALLURGICAL PROCESSING WITHIN AN ACTIVE MANAGEMENT AREA

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issue of permit.
5. Use explanatory section on back for clarification, if necessary.
6. Use this form for sand and gravel operations.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No._____
Permit No._____
File No._____
Filed_____By_____
Input_____By_____
Duplicate
Mailed_____By_____
AMA_____S/B___W/S___

II GENERAL DATA

1. NAME OF APPLICANT:_____

_____
Mailing address City State Zip Code Telephone number

2. Applicant is _____Owner__xx__Lessee_____ Other (explain)_____

3. Groundwater will be withdrawn within the _____sub-basin of the _____Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn. If same as applicant, check this box ☐

_____
Name Address City State Zip

5. Legal description of the land on which the groundwater will be used.

_____

_____Township____N/S Range____E/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐

_____
Name Address City State Zip

7. The specific purpose for which groundwater will be withdrawn:_____

_____

8. Amount of groundwater for which application is being made:_____

_____acre feet per year for_____ years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $_____

10. Has applicant previously been granted a dewatering permit? _____ If so, what is the amount of groundwater available to the applicant under the terms of this permit?_____

11. Applicant proposes to withdraw groundwater from:

___ existing well or wells. Registration No.(s) 55-_____; 55-_____.

___ new well or wells.

___ other (specify: mine shaft, etc) Point of withdrawal is within ___¼, ___¼, ___¼ Section _____; Township_____N/S; Range _____E/W.

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well: _____¼_____¼_____¼ of Section _____

   Township_____N/S Range_____E/W.

2. Owner of well (if same as applicant) check this box ☐

_____

Name Address City State Zip

3. Depth of well:_____feet

4. Diameter of casing:_____inches

5. Type of casing_____

6. Design pump capacity_____GPM

7. Construction will start about:_____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
Dept. of Water Resources license number

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS 45-598 and 45-599. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of a permit issued pursuant hereto. This is also to advise that uncommitted municipal and industrial Central Arizona Project water is not available at the point where the operator's well head or distribution system would otherwise be, at a cost which does not exceed the current municipal and industrial CAP delivery rates and that surface water or effluent of adequate quality is not available within the cost schedule established by ARS 45-514 A-3.

I, _____, state that the information contained in this application is true and correct to my best belief and knowledge.

_____ _____

Date Signature of Applicant

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER FOR MINERAL EXTRACTION & METALLURGICAL PROCESSING WITHIN AN ACTIVE MANAGEMENT AREA

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issue of permit.
5. Use explanatory section on back for clarification, if necessary.
6. Use this form for sand and gravel operations.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No._____
Permit No._____
File No._____
Filed_____By_____
Input_____By_____
Duplicate
Mailed_____By_____
AMA_____S/B___W/S___

II GENERAL DATA

1. NAME OF APPLICANT:_____

_____
Mailing address City State Zip Code Telephone number

2. Applicant is _____Owner__xx__Lessee_____ Other (explain)_____

3. Groundwater will be withdrawn within the _____sub-basin of the _____Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn. If same as applicant, check this box ☐

_____
Name Address City State Zip

5. Legal description of the land on which the groundwater will be used.

_____

_____Township____N/S Range_____E/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐

_____
Name Address City State Zip

7. The specific purpose for which groundwater will be withdrawn:_____

_____

8. Amount of groundwater for which application is being made:_____

_____acre feet per year for_____ years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $_____

10. Has applicant previously been granted a dewatering permit? _____ If so, what is the amount of groundwater available to the applicant under the terms of this permit?_____

11. Applicant proposes to withdraw groundwater from:

___ existing well or wells. Registration No.(s) 55-_____; 55-_____.

___ new well or wells.

___ other (specify: mine shaft, etc) Point of withdrawal is within ____¼, ____¼, ____¼ Section _____; Township_____N/S; Range _____E/W.

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well: _____¼ _____¼ _____¼ of Section _____

   Township_____N/S Range_____E/W.

2. Owner of well (if same as applicant) check this box ☐

_____

Name Address City State Zip

3. Depth of well:_____feet

4. Diameter of casing:_____inches

5. Type of casing_____

6. Design pump capacity_____GPM

7. Construction will start about:_____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
Dept. of Water Resources license number

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS 45-598 and 45-599. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of a permit issued pursuant hereto. This is also to advise that uncommitted municipal and industrial Central Arizona Project water is not available at the point where the operator's well head or distribution system would otherwise be, at a cost which does not exceed the current municipal and industrial CAP delivery rates and that surface water or effluent of adequate quality is not available within the cost schedule established by ARS 45-514 A-3.

I, _____, state that the information contained in this application is true and correct to my best belief and knowledge.

_____ _____

Date Signature of Applicant

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

mailed 2/19/87

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER
FOR HYDROLOGIC TESTING PURPOSES
WITHIN AN ACTIVE MANAGEMENT AREA

I INSTRUCTIONS

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No. _____
Permit No. _____
File No. _____
Filed by _____ By _____
Input _____ By _____
Duplicate
Mailed _____ By _____
AMA _____ S/B ___ W/S ___

II GENERAL DATA

1. NAME OF APPLICANT A.F. Budge (Mining) Limited

Mailing address 7340 E. Shoeman Lane, Suite 111"B"(E)

Scottsdale	AZ	85251-3335	(602) 945-4630
City	State	Zip Code	Telephone number

2. PURPOSE OF THIS TESTING PERMIT (check only one box)

☐ To obtain groundwater samples not exceeding 3 acre feet per annum for testing groundwater quality in order to comply with applicable environmental controls for a period of up to 10 years. - A.R.S. 45-519.01.A.

☒ To test hydrologic characteristics and conditions, including groundwater quality. Groundwater withdrawn shall not exceed 10 acre feet nor shall the period of withdrawal exceed 90 days. - A.R.S. 45-519.01.B.

☐ To withdraw more than 10 acre feet of groundwater for hydrologic testing purposes, and/or for a period greater than 90 days - include specifics of testing circumstances that require such withdrawal and/or period. - A.R.S. 45-519.01.D.

3. Groundwater will be withdrawn within the Hassayampa sub-basin of the Phoenix Active Management Area.

4. State your plan for disposing of the groundwater withdrawn Water will be chanelled to natural surface drainage.

5. The specific purpose of the hydrologic testing is: To determine well productivity capacity and water quality.

6. Total amount of groundwater for which application is being made: 0.5 acre feet.

7. Proposed duration of the hydrologic testing 2 Days ☒ Months ☐

8. State the testing circumstances that require withdrawals in excess of 10 acre feet or a testing period for more than 90 days: _____

DWR-55-79-9/85

9. Groundwater to be withdrawn by means of:

A. Existing wells:

Registration No.	Location	Depth	Casing	Case Type
55-800 940-L	NW¼,Sec.31,T.6N,R5W	714 ft.	6in. dia.	steel
55-				

B. New wells:

Registration No. (Dept. to Complete)	Location	Depth	Casing	Case Type
55-				
55-				
55-				

10. State your plans for the well(s) after testing is completed: Plans are to use water for a proposed mining operation. Application has been submitted (File Reference No. 59-516142) for Permit to Withdraw Groundwater for Mineral Extraction & Metallurgical Processing.

11. If new well(s) is to be drilled, complete the following information relating to the driller:

Driller's name _____ DWR License No. _____

Address _____

_____

It is understood that the Permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2). The permittee will be bound by the provisions of such law and the provisions of the Permit issued.

Signature of Applicant _____ Date February 19,1987

A.J. Fernandez
Senior Mining Engineer

B 060 050 31 B WR 800940 FILE TYPE: REGISTRATION L WELL TYPE: NON-EXEMPT
DATE ISSUED: 09 14 983 PLANNED PUMP CAP:

NAME: V M P INC IN CARE OF:
BOX 1853
WICKENBURG AZ 85358

ACCURACY: NOT VERIFIED WATER USES: INDUSTRIAL
AREA: PHOENIX AMA
SUB-BASIN:
WATERSHED: LOWER GILA RIVER WELL USES: WATER PRODUCTION
COUNTY: MARICOPA
OWNER: CORPORATION DRILLER:

WELL DPTH: 714 FT CASE DIAM: 6 IN CASE DPTH: METH DET:
PUMP CAP: 60 GPM FINISH: STEEL ACRES IRR: YIELD: 60 GPM
DRAW DOWN: WATER LVL: 446 FT LIFT: POWER:
DATE COMPLETED: 00 00 942
POU #1: SE SW NW 36 060 N 060 W POU #2: SW NW 31 060 N 050 W

STATUS: DATA OWN LOG R CRT R PQ NBR: IPQ STATUS:

ARIZONA DEPARTMENT OF WATER RESOURCES
GRANDFATHERED GROUNDWATER RIGHTS

APP#: 78 111546

OWNER 1: VULTURE MINE PROP OWNER 2:
BOX 1853
WICKENBURG AZ 85358
IN CARE OF:

AMA: PHOENIX TYPE: N IRR II BOOK-MAP-PARCEL:

LEGAL 1: 36 6.0 N 6.0 W
LEGAL 2:

ACRES: 240.00 AMT WTD: 0.00 UOM: XXX

USE: SB: HASSAYAMPA OWN: CORPORATION

STATUS: DENIED DATE: 09 14 981 DATE OF LAST CHANGE:

B 060 050 31 B WR 800940 FILE TYPE: REGISTRATION L WELL TYPE: NON-EXEMPT
DATE ISSUED: 09 14 983 PLANNED PUMP CAP:

NAME: V M P INC IN CARE OF:
BOX 1853
WICKENBURG AZ 85358

ACCURACY: NOT VERIFIED WATER USES: INDUSTRIAL
AREA: PHOENIX AMA
SUB-BASIN:
WATERSHED: LOWER GILA RIVER WELL USES: WATER PRODUCTION
COUNTY: MARICOPA
OWNER: CORPORATION DRILLER:

WELL DPTH: 714 FT CASE DIAM: 6 IN CASE DPTH: METH DET:
PUMP CAP: 60 GPM FINISH: STEEL ACRES IRR: YIELD: 60 GPM
DRAW DOWN: WATER LVL: 446 FT LIFT: POWER:
DATE COMPLETED: 00 00 942
POU #1: SE SW NW 36 060 N 060 W POU #2: SW NW 31 060 N 050 W

STATUS: DATA OWN LOG R CRT R PQ NBR: IPQ STATUS:

ARIZONA DEPARTMENT OF WATER RESOURCES
GRANDFATHERED GROUNDWATER RIGHTS

APP#: 78 111546

OWNER 1: VULTURE MINE PROP OWNER 2:
BOX 1853
WICKENBURG AZ 85358
IN CARE OF:

AMA: PHOENIX TYPE: N IRR II BOOK-MAP-PARCEL:

LEGAL 1: 36 6.0 N 6.0 W
LEGAL 2:

ACRES: 240.00 AMT WTD: 0.00 UOM: XXX

USE: SB: HASSAYAMPA OWN: CORPORATION

STATUS: DENIED DATE: 09 14 981 DATE OF LAST CHANGE:

BUDGE

A. F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111 "B" (E)
Scottsdale, AZ 85251-3335
(Business Office)
Telephone: (602) 945-4630
Telex: 751739

Regarding Question #8

The flow rate of solution through the gold recovery plant will be approximately 150 gpm. Other similar facilities operating in arid climates experience evaporation losses of about 25%. Therefore we anticipate losses of 37.5 gpm or 60 acre-feet per year. This represents nearly all the plant requirements as no water will leave the facility any other way.

Dust control in the mining operation will require approximately 30,000 gallons per day or 34 acre-feet per year. This includes watering of the mine roads and water sprays at the crushing facilities.

This totals 94 acre-feet per year. An additional 6 acre-feet per year is proposed to supply any unforseen requirements.

State of Arizona

DEPARTMENT OF WATER RESOURCES

99 E. Virginia Avenue, Phoenix, Arizona 85004

BRUCE BABBITT, Governor
KATHLEEN FERRIS, Director

September 24, 1986

Joe Fernandez
A.F. Budge
7340 East Shoeman Lane,
Suite 111 B
Scottsdale, Arizona 85251

Re: 55-800940 L
B(6-5) 31 b

Dear Mr. Fernandez:

In response to the telephone conversation we had today, I am sending you copies of the Well Registration, and the Application for Grandfathered Groundwater Right, 78-111546, which was subsequently denied. I am also sending you a change of Well Information form to change the well file into your name.

Since the well does not have a Grandfathered Groundwater right attached to it, I am sending an application for a General Industrial Use Permit and an application for a Permit to Operate a Non-Exempt, Non-Service Area well Within an Active Management Area. If you complete these forms, please be advised that we will require three quarters on the application. The well Registration provides only one quarter.

If you have any questions, please call me at (602)255-1581 or write to the above address.

Sincerely,

Marge Watson, Chief
Groundwater Section

MW:mw
Enclosures

255-1586
STEPHEN
SUPRONSKI

255 1586
Robert Fridfield
City Lady

Vulture 10/1/86

ESTIMATE OF well capacity per year

60 gpm @ well head

60 x 60 x 24 = 86,400 gal/day

x 365 = 31,536,000 gal/year

325,850.28 gals = 1 ACRE-FOOT

96.78 ACRE FEET/YEAR -

SAY 100 ACRE FEET/YEAR

200,000 metric tons

48 l/sq m

1.17 gal/sq ft-/hr

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER
for a
GENERAL INDUSTRIAL USE WITHIN AN ACTIVE MANAGEMENT AREA
(ARS 45-515)

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No. _____
(Registration)
Permit No. _____
File No. _____
Filed _____ By _____
Input _____ By _____
Duplicate
Mailed _____ By _____
AMA _____

II GENERAL DATA:

1. NAME OF APPLICANT A.F. Budge (Mining) Limited
7340 E. Shoeman Lane, Suite 111"B"(E), Scottsdale, AZ 85251 945-4630
Mailing address City State Zip Code Telephone Number

2. Applicant is _____ Owner x Lessee _____ Other (explain) _____

3. Well is located in the Hassayampa sub-basin of the Phoenix Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn.
If same as applicant, check this box ☐
V.M.P., Inc., 1414 E. Purdue, Phoenix, AZ 85020
Name Address City State Zip

5. Legal description of the land on which the groundwater will be used.
Patented and unpatented claims located in Maricopa County, G&SRM,
Sections 1,6,31, 35, 36 Township 5&6 N/~~X~~ Range 5&6 ~~X~~/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐
V.M.P.,Inc. 1414 E. Purdue Phoenix, AZ 85020
Name Address City State Zip

7. The specific purpose for which groundwater will be withdrawn: _____
A heap leach gold mining operation

8. Amount of groundwater for which application is being made:
100 acre feet per year for 5 years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $5,100 per Acre-foot

DWR-55-56-12/83

10. Attach proof of denial of service or inaction on a service request by a city, town, or private water company if the location of the applicant's intended use is within three miles of the exterior boundaries of the service area of such city, town or private water company. (Attach supporting documentation.) This is not required for an expanded animal industry use as defined in ARS §45-402.

11. Attach studies of the probable hydrologic impact on the groundwater resources which the applicant proposes to use, including evidence of the availability of an assured water supply for the intended use.

12. Applicant proposes to withdraw groundwater from:

1 Existing well or wells Registration No(s). 55- 800940-L 55-_____
_____ New well or wells

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well: _____ ¼ _____ ¼ _____ ¼ of Section _____
Township _____ N/S Range _____ E/W.

2. Owner of well (if same as applicant) check this box ☐

_____
Name Address City State Zip

3. Depth of well: _____ feet

4. Diameter of casing: _____ inches

5. Type of casing _____

6. Design pump capacity _____ GPM

7. Construction will start about: _____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
DWR License Number

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS §45-598. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of the permit issued pursuant hereto.

I, Ben F. Dickerson III state that the information contained in this application is true and correct to my best belief and knowledge.

November 14, 1986
Date

Ben F. Dickerson III
Signature of Applicant

Ben F. Dickerson III, Agent

DEPARTMENT OF WATER RESOURCES (DWR)
99 East Virginia
PHOENIX, ARIZONA 85004

APPLICATION FOR A PERMIT TO DRILL OR OPERATE A NON-EXEMPT, NON-SERVICE AREA WELL WITHIN AN ACTIVE MANAGEMENT AREA, PURSUANT TO A.R.S. §45-599.

INSTRUCTIONS:

I 1. This Application should be used to obtain a permit to:

(a) Drill a non-exempt well in conjunction with a General Industrial Use, Groundwater Withdrawal Permit, or a Certificate of Grandfathered Rights.

(b) Convert (enlarge) an existing well to a non-exempt use.

2. CITIES, TOWNS, PRIVATE WATER COMPANIES OR IRRIGATION DISTRICTS WISHING TO DRILL OR OPERATE A SERVICE AREA WELL SHOULD USE DWR FORM 55-64-3/84.

3. Complete all appropriate items on this application, sign in the appropriate place and mail to 99 East Virginia, Suite 100, Phoenix, Arizona 85004.

4. Application fee is $20.00. A permit fee of $30.00 will be requested when permit is approved for issue.

5. If multiple wells are involved or if the proposed design pump capacity is in excess of 500 gallons per minute, the applicant must attach a hydrological study which delineates projected declines in water levels due to the operation of the proposed well or wells as required by Department Rule R12-15-830.

Applicant A.F. Budge (Mining) Limited

Address 7340 E. Shoeman Lane, Suite 111"B" (E)

City Scottsdale State AZ Zip 85251

Telephone 945-4630

Land Owner V.M.P., Inc. c/o Larry W. Beal

Address 1414 E. Purdue

City Phoenix State AZ Zip 85020

Telephone n/a

Driller n/a Dept. License _____

City _____ State _____ Zip _____

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

Application No. 55-_____
(Registration)
Permit No. T-_____
File No._____
Filed_____ By_____
Date of Receipt of Complete and Correct Application
_____ By_____
Input_____ By_____
Permit Mailed_____ By_____
AMA_____
W/S_____ S/B_____

II DATA ON PROPOSED WELL:

1. Applicant is:_____ Owner xx Lessee

2. Proposed Well is:

New Well ☐
Conversion (enlargement) of an Existing Well ☒
Replacement Well in new location ☐

3. Claim of entitlement to withdraw groundwater is based upon:

☐ Certificate of Grandfathered Right. Certificate 58_____
☐ Groundwater Withdrawal Permit. Permit P-_____
☒ Application for General Industrial Use, Groundwater Withdrawal Permit. Application No. 55-_____

4. Specific Well data:

WELL LOCATION

Township 6 N
Range 5 W
Section 31
NW ¼, SW ¼, NW ¼,

5. County Maricopa Type of casing steel pipe
Depth 714 ft. Diameter 6 in. Design pump capacity 75 gallons per minute

6. Proposed annual volume 100 acre feet

7. The principal use(s) of groundwater will be (be specific) Operation of a gold processing facility

DWR-55-63-8/86 (Revised)

8. Estimated time to complete the well_____. (If longer than one year, attach explanation.)

9. Well is located in the _____sub-basin of the _____ Active Management Area.

10. Groundwater will be used in the _____basin of the _____ Active Management Area.

11. Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility or storage area of hazardous materials? Yes__ No__

If yes, a request for a variance must accompany this application pursuant to R12-15-820.

III DATA FOR REPLACEMENT WELL:

12. DWR registration number of the existing well is 55-_____. Location of the original well: _____¼,_____¼,_____¼ of Section _____, Township_____, Range_____, Depth_____feet, diameter_____ inches.

13. Distance between existing well and replacement well is _____feet.

14. Will the existing well(s) be abandoned if applicant receives this permit to drill a well?_____ If answer is yes, Form DWR 55-46-12/83 must be submitted to this Department within 30 days after abandonment. If answer is no, explain the planned use of the existing well(s):_____

IV DATA FOR CONVERSION OF EXISTING WELL:

15. DWR registration number of the existing well is 55-800940-L. The present pump design capacity of the existing well is 75 gallons per minute.

16. The new design pump capacity will be 75 gallons per minute.

17. The well will pump 100 acre feet per annum.

18. The existing well has previously been used in conjunction with or for the following: Supply of domestic water to one household and stock tanks.

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2,) The permittee will be bound by the provisions of such law and the provisions of the permit issued.

Signature of Applicant Ben F. Dickerson Date November 14, 1986

Ben F. Dickerson III, Agent

REGISTRATION OF EXISTING WELLS (LATE REGISTRATION)

The 1980 Groundwater Law required that you, as a well owner, register your well with the Department of Water Resources prior to June 14, 1982. This requirement was different than and in addition to the filing for Grandfathered Groundwater Rights. Our records show that you did not register the well(s) you own. For that reason, please complete the following WELL REGISTRATION FORM, in duplicate, and submit it to the Department along with the appropriate fee within 15 days of receipt of this letter. Please read the instructions on the back of this form before completing. Type or print. PLEASE UNDERSTAND THAT UNLESS YOUR WELL(S) ARE REGISTERED, WE WILL NOT BE ABLE TO PROCESS YOUR GRANDFATHERED RIGHT APPLICATION, NUMBER C78-111546.
If you have questions regarding the completion of this form, please call the Phoenix Active Management Area Office at 602-255-1512.

* *

ARIZONA DEPT. WATER RESOURCES '83 SEP 14 P12:26

L8

FOR OFFICE USE ONLY

Registration No. 55- 800940-L

File No. B(6-5)31 b

Filed 9-14-83 (Date) At 12:26 (Time)

INA

AMA PHOENIX

LATE REGISTRATION FEE (CHECK ONE)

EXEMPT WELL - $10.00

NON-EXEMPT WELL - $20.00 ✓

1. Name of registrant: V. M. P. INC.
Box 1853 (Address) WICKENBURG (City) AZ. (State) 85358 (Zip)

2. File and/or Control Number under previous groundwater law:
(File Number) 35- (Control Number)

3. a. The well is located within the ¼ ¼ NW ¼, Section 31
of Township 6N N/S, Range 5 W E/W, G & SRB & M, in the
County of MARICOPA.
b. If a subdivision: Name of subdivision
Lot No. ____, Address

4. The principal use(s) of water (Examples: irrigation - stockwater - domestic - municipal - industrial) INDUSTRIAL

5. If for irrigation use, number of acres irrigated from well

6. Owner of land on which well is located. If same as Item 1, check this box ✓
(address) (City) (State)

7. Well data:
a. Depth of Well 714 feet.
b. Diameter of casing 6 inches.
c. Depth of casing ? feet
d. Type of casing STEEL PIPE
e. Maximum pump capacity 60 gallons per minute.
f. Depth of water 446.9 feet below land surface.
g. Date well completed ? (Month) BEFORE (Day) 1942 (Year)

8. The place(s) of use of water. If same as Item 3, check this box
¼ SW ¼ NW ¼, Section 31 Township 6N Range 5W
NE ¼ SE ¼ SW ¼ NW ¼, Section 36 Township 6N Range 6W

Attach additonal sheet if necessary.

9. DATE 8/30/83 SIGNATURE OF REGISTRANT [signature] Pres

S

hydrology withdrawal point for testing

Application to Appropriate

60 day notice period

Daniel -

- STOCK POND?

Down stream users?

John Lang?

Topo map -

Benefit use?

State of Arizona

DEPARTMENT OF WATER RESOURCES

99 E. Virginia Avenue, Phoenix, Arizona 85004

BRUCE BABBITT, Governor
KATHLEEN FERRIS, Director

September 8, 1986

Dear Permit Applicant:

House Bill 2209, the Recharge Bill, was signed into law May 5, 1986. This action recognized groundwater recharge as a viable and valuable water management tool and incorporated it into the existing state water management framework. The Recharge Bill established a permitting system for two categories of recharge projects:

* Projects designed for the addition of water to the aquifer with no resultant right to withdraw the recharged water. These are referred to as Recharge Projects and are covered under Title 45, Chapter 2, Article 13.

* Projects designed and constructed to store water underground for the purpose of subsequent recovery. These are referred to as Underground Storage and Recovery Projects and are covered under Title 45, Chapter 2.1

This packet contains the necessary information and forms to file an application for a permit for either type of project. Title 45, Chapter 2, Article 13 and Tile 45, Chapter 2.1 also require an applicant to obtain any necessary water quality permits from the Department of Health Services.

Potential applicants are strongly encouraged to contact the Department to arrange a pre-application conference. Such a conference will help the Department understand the applicant's needs and help the applicant understand the data and analytical requirements of the Department.

Prior to submittal of the application, the applicant is requested to provide a hydrologic study proposal for review.

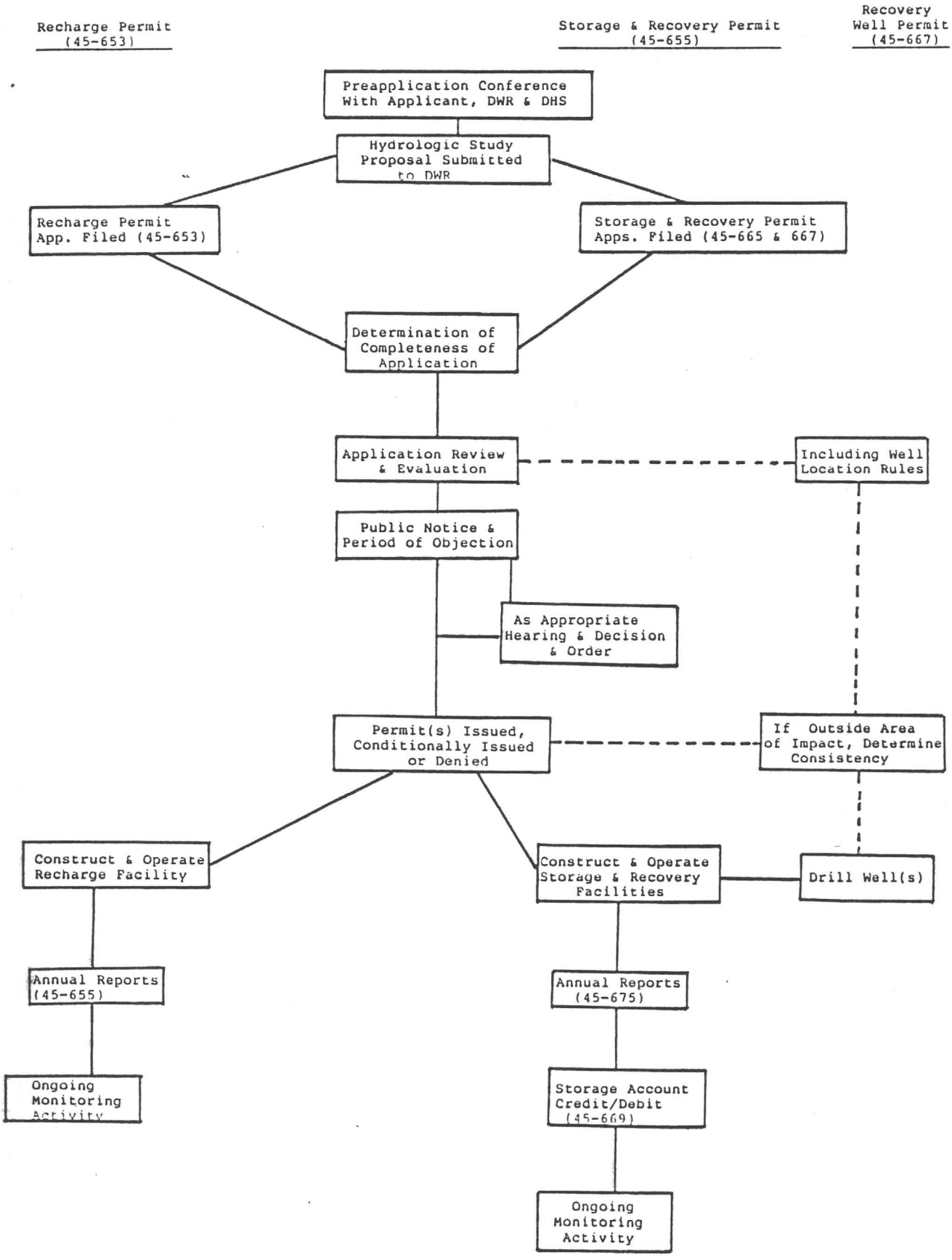
Enclosed: Applications and Instructions
General Procedures Flow Chart
List of Agency Contacts

from S.H.B.

8/28/86

GENERAL PROCEDURES

Permit Application Review and Issuance



Agency Contacts

Potential applicants are encouraged to contact DWR or ADHS with questions prior to submittal of an application. It is strongly recommended that a preapplication meeting be scheduled if submittal of an application is imminent.

For general assistance and information, contact the nearest DWR office.

Phoenix Active Management Area
2702 N. 3th St., Suite 2010
Phoenix, AZ 85034
255-1512

Pinal Active Management Area
901 E. Cottonwood Lane
P.O. Box 1373
Casa Grande, AZ 85222
836-4857

Prescott Active Management Area
1316 Iron Springs Rd
Ponderosa Plaza, Suite A
Prescott, AZ 86301
778-7202

Tucson Active Management Area
310 South Meyer
Tucson, AZ 85701
628-5858

For specific technical questions:

Hydrology Division
Department of Water Resources
99 E. Virginia
Phoenix, AZ 85004
255-1586

Arizona Department of Health Services
Office of Waste &
Water Quality Management
Division of Water Quality Permits
2005 N. Central
Phoenix, AZ 85004
257-2270

ARIZONA DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004
Phone: (602) 255-1581

APPLICATION FOR RECHARGE
PROJECT PERMIT (45-653)

FOR DEPARTMENT USE ONLY

Application No. 64-_____
Date Received_____
Received by_____

1. Name of applicant_____

_____
Mailing Address City State Zip Telephone Number

Contact person_____

2. Name of Active Management Area, Irrigation Non-expansion Area, groundwater basin or sub-basin where the project will be operated_____

3. Name of owner of the land where project will be operated_____

_____
Mailing Address City State Zip Telephone Number

4. Legal description of the location of the project:

____¼____¼____¼ Section_____ Township_____N/S Range_____E/W

5. Attached___(check) Evidence of financial and technical capability.(See instructions)

6. Sources of the water to be recharged _____

7. Annual quantity of water proposed to be recharged_____ acre feet.

8. Legal basis for acquiring and using water proposed to be recharged (cite law, court decree, contract or other basis)_____

9. Attached ____(check) a description of the proposed project including design capacity, plan of operation and monitoring plan.

10. Attached ____(check) study demonstrating area of hydrologic impact, hydrological feasibility and that the project will not cause unreasonable harm to water users in the area.

11. Proposed duration of the permit _____years.

12. The water quality permit number or application number as required by the Department of Health Services _____.

13. Attached_____(check) application fee.

DWR-55-92-9/86

I, (We), _____ the applicant(s) named in this application, do hereby certify under the penalty of perjury, that the information contained and statements made herein are to the best of my (our) knowledge and belief true, correct and complete.

_____ Telephone number

_____ Owner or authorized agent

_____ Title

_____ Mailing address _____ City _____ State _____ Zip

Subscribed and sworn to before me this _____ day of _____ 19____

_____ Notary Public

or

_____ Authorized Personnel of the Department of Water Resources

_____ My Commission Expires:

ARIZONA DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004
Phone (602) 255-1581

APPLICATION FOR UNDERGROUND WATER

STORAGE AND RECOVERY PROJECT (45-661)

FOR DEPARTMENT USE ONLY

Application No. 64-_____

Date Received_____

Received by_____

1. Name of Applicant_____

_____

Mailing Address City State Zip Telephone Number

_____

Contact person

2. Name of Active Management Area, Irrigation Non-expansion Area, groundwater basin or sub-basin where the project will be operated_____ _____

3. Name of owner of the land where project will be operated_____

_____

Mailing address City State Zip Telephone Number

4. Legal description of the location of the project:

____¼____¼____¼ Section_____Township_____N/S Range_____E/W

5. Attached _____(check) evidence of financial and technical capacility. (See instructions.

6. Source(s) of the water to be stored_____

Type of water _____ Location (Diversion Point)_____

7. Annual quantity of water proposed to be stored_____acre feet.

8. Legal basis for acquiring and using water proposed to be stored. (Cite law, court decree, contract or other basis_____

9. Attached ____(check) a description of the proposed project including design capacity and plan of operation.

10. Attached ____(check) study demonstrating area of hydrologic impact, hydrological feasibility and that the project will not cause unreasonable harm to water users in the area. (See Instructions.)

11. Proposed duration of the permit _____years.

12. The water quality permit number or application number as required by the Department of Health Services _____.

13. Attached _____(check) application fee.

I, (We), _____ the applicant(s) named in this application, do hereby certify under the penalty of perjury, that the information contained and statements made herein are to the best of my (our) knowledge and belief true, correct and complete.

_____ _____

Telephone number Owner or authorized agent

_____

Title

_____

Mailing Address City State Zip

Subscribed and sworn to before me this _____ day of _____ 19_____

_____

Notary Public

or

_____

Authorized Personnel of the
Department of Water Resources

_____

My Commission Espires:

ARIZONA DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004
Phone (602) 255-1581

APPLICATION FOR A RECOVERY
WELL PERMIT (45-667)
APPLICATION FEE $50.00

FOR DEPARTMENT USE ONLY

Application No.55-_____
Permit No. R-_____
File No._____
Date Received_____

1. Name of Applicant_____

2. _____
Mailing Address City State Telephone number

3. The well is _____(check) existing or _____ proposed new well. If existing, give well registration No. 55-_____.

4. Owner of the land where wellsite is located is

_____
Name Address City State Zip

5. The recovered water will be used for _____

6. The legal description of the land where water will be used is:

____¼____¼____¼ Section_____ Township_____N/S Range_____E/W

7. Name of driller_____ License No._____

8. Design pump capacity_____ gallons per minute.

9. Well depth_____ft. Diameter_____in. Proposed annual volume _____ acre feet.

10. Construction will begin_____.
Date

11. Estimated time required to complete well_____

12. The recovery well will be operated under Storage and Recovery Project Permit No. 64-_____.

I, (We), _____ the applicant(s) named in this application, do hereby certify under the penalty of perjury, that the information contained and statements made herein are to the best of my (our knowledge and belief true, correct and complete.

_____ _____

Telephone number Owner or authorized agent

_____

Title

_____

Mailing address City State Zip

Subscribed and sworn to before me this _____ day of _____, 19___.

_____

Notary Public

or

_____

Authorized Personnel of the
Department of Water Resources

_____

My Commission Expires:

INSTRUCTIONS FOR COMPLETING AN APPLICATION
for
Underground Water Storage
and Recovery Permits (45-661)
and Recharge Permits (45-653)

APPLICATION QUESTION NUMBER:

1. Please include the name of a contact person who will be available and able to respond to questions during the application review process.

2. If you are unsure of the proper response, please contact the nearest DWR office.

3. Self-explanatory
4. Self-explanatory
5. An applicant for a permit for either a recharge permit or a storage and recovery permit is required to demonstrate technical and financial capability to construct and operate such a project. The general criteria for such a demonstration are as follows:

   A. Financial Capability - Construction

   Ability to fund all elements of construction must be indicated by one of the following:

   1. Evidence that a contribution or advance in aid of construction has been made to the applicant in sufficient amounts to meet the project development costs.

   2. A letter of credit or evidence of an irrevocable line of credit with a lender in sufficient amounts to meet the project development costs.

   3. Evidence of a loan or loan committment from a lender in sufficient amounts to meet the project development costs.

   4. Evidence that a cash bond in sufficient amounts to meet the project development costs has been posted with a local, county or state government agency. A formal committment of bond funds or other revenues by a public entity.

B. Financial Capability - Operation

The ability to operate a facility must be indicated with evidence of the following:

1. Ability to develop and maintain a facility operating budget.

2. Ability to secure all funds necessary for the implementation of the facility operating plan.

3. Ability to be insured for the risk associated with the operation of the facility including possible negative impacts of facility on surrounding land and water users.

4. Ability to finance operation of facility for projected life of project as detailed in Operating Plan.

C. Technical Capability

A concise statement of technical expertise to be applied to the project must be included.

If an applicant is intending to use their own technical staff, a statement of qualification and professional certification of the involved staff must be submitted. If a consultant will perform the work, a standard form 254 or its equivalent must be submitted.

The evidence of technical and financial capability should be attached to the application as "Exhibit 1."

6. The applicant should indicate the type(s) of water (e.g. CAP water, effluent, surface water, etc.) to be recharged and the location or diversion point(s) of the source water (e.g. the canal turnout point, the treatment plant outfall point, surface water diversion structure, etc.)

7. This figure should represent the maximum volume expected to be stored in any year of operation. The actual expected deviation and variability of the recharge rate should be detailed in the hydrologic study (item 10).

8. State the legal rights to all the sources of water listed in item 6.

9. & 10. Instructions for completion of items 9 & 10 are covered in detail in the attachment "Hydrologic Report Requirements." It should be noted that a preapplication conference is necessary before initiating the hydrologic study. The hydrologic study should be attached as Exhibit 2.

11. Duration of the permit cannot exceed 50 years.

12. All recharge projects and storage and recovery projects require issuance of a water quality permit by the Department of Health Services. The applicant must include the ADHS application or permit number.

13. The applicant must include the appropriate application fee as follows:

Recharge Permit Application:	$50.00
Storage and Recovery Permit Application:	$1000.00

<u>Storage and Recovery Permit Applicants Only</u>:

An application for a recovery well permit (A.R.S. 45-667) must be filed for each proposed recovery well. Recovery well permit applications should be attached to the Underground Storage and Recovery permit application as Exhibit 3.

GROUNDWATER RECHARGE PROJECT AND UNDERGROUND STORAGE AND RECOVERY PROJECT PERMITS

HYDROLOGIC REPORT REQUIREMENTS

The following sections summarize the information which should be submitted to the ADWR to satisfy the Department's hydrologic report requirements (Application Item #9 and #10) for submission of an application for a recharge project permit or an underground storage and recovery project permit. ADWR may request additional information from the applicant which is not specifically mentioned herein but is required for the Department's evaluation of the Application.

The hydrologic report submitted with an application for recharge permit should include a project description report and a geo-hydrologic feasibility report. Section 1 describes the information which should be included in the project description report and Section 2 describes the information which should be included in the geo-hydrologic feasibility report.

HYDROLOGIC REPORT REQUIREMENTS

1.0 PROJECT DESCRIPTION REPORT

1.1 Introduction
1.2 Data Review
1.3 Water Supply
- Source(s) of Water
- Quantity
- Quality
- Treatment

1.4 Proposed Facility
- Location
- Recharge Method
- Facility Design and Plan of Operation

1.5 Monitoring Plan
- Monitoring Wells
- Water Quantity Monitoring
- Water Quality Monitoring

1.6 Summary and Conclusion(s)

2.0 GEO-HYDROLOGIC FEASIBILITY REPORT

2.1 Data Review
2.2 Geology
- Geologic Units
- Structures

2.3 Groundwater
- Water Levels
- Aquifer Characteristics
- Water Quality

2.4 Storage Potential
2.5 Summary and Conclusions

HYDROLOGIC REPORT REQUIREMENTS

1.0 PROJECT DESCRIPTION REPORT

1.1 Introduction -

The introduction of the project description report should provide a brief overview of the following:

- Location of the proposed facility.
- Type and nature of recharge method.
- Description of the proposed facility including design and operation scheme.

1.2 Data Review -

A complete list of pertinent reports and data on the proposed source(s) of water and the proposed recharge project should be provided. A complete and balanced summary that identifies areas where additional data are necessary should be included.

1.3 Water Supply -

Source(s) of Water

The sources of water should be clearly identified. State the type(s) of water to be recharged and give the legal description of the locations of each occurrence. Types of recharge water may include stormwater runoff, treated effluent, CAP water, etc. . . .

Quantity

The quantity of water available should be clearly defined, both for a demonstration project and for a fully operating project. The analysis of availability should include the following:

- Seasonal, annual, and long term availability.
- Minimum and maximum available supply, and any trends in available supply.
- Probability that needed volumes will be available.
- Length of record of available data and methods used to calculate available data.

The source of the above data should be supplied by citing the appropriate references.

Quality

The quality of the source water should be described, both as received at the facility and as discharged to the recharge basin, pit, well, or streambed. The description should include data on the physical, chemical, and biological parameters necessary to obtain state and federal permits and on parameters which need to be monitored to ensure efficient operation of the facility. The variation in quality of source water seasonally and at different flow rates should also be described.

Treatment

Any needed treatment of the source water for environmental or facility operational reasons should be described.

1.4 Proposed Facility -

Location

The legal description of the location of the proposed facility should include the township, range, section number(s) and quarters of the section(s).

Recharge Method

A description of the recharge method to be used should be provided (recharge basin, recharge well, stream channel recharge). Criteria that dictate the use of the recharge technique proposed should be outlined and the feasibility of the project evaluated based on such criteria. Potential impacts resulting from the operation of the facility also needs to be assessed. Potential impacts may include environmental, aesthetic, legal, etc. . . .

Facility Design and Plan of Operation

A detailed description of the facility design and operation scheme should address the following:

- Diversion, conveyance, and storage structures (pipelines, canals, ponds, etc.).

- Recharge structures (basins, wells, etc.).

- Withdrawal and treatment facilities (if applicable).

A plan view map should also be provided showing the location of the above structures.

1.5 Monitoring Plan -

Monitoring Wells

A list of existing wells suitable for use as monitoring wells should be provided. The list should include the following data for each well:

- A legal description of the location of the well(s). The legal description should be in the same format as the Arizona well location numbering system.

- The well(s) depth from land surface.

- Casing size(s) and the corresponding depths of each diameter.

- Type of perforations and perforated intervals.

- The access for measuring water levels.

Water Quantity Monitoring

The quantity of water discharged to the groundwater system or vadose zone by the recharge facility and the amount of water received by the groundwater system should be measured separately. The monitoring plan should include measurement of the following:

- Change in discharge rate.
- Change in depths to groundwater and in groundwater elevations on an areal basis.
- Change in groundwater flow direction and rate.
- Evaporation rates.

A complete description of the methods and frequency of measuring these volumes should be provided. The location of all measuring sites should be provided on map(s) of appropriate scale for the area of impact of the project or for a three mile radius of the project site.

Water Quality Monitoring

Information to be submitted for water quality monitoring is regulated by the Arizona Department of Health Services (ADHS). The ADHS will require the applicant to file for an Aquifer Protection Permit.

1.6 Summary and Conclusions -

The purpose of the summary and conclusions section is to summarize the pertinent details of the availability of recharge water, the proposed facility, and the monitoring plan. After summarizing the pertinent details, the conclusions regarding the feasibility of the project should be stated.

2.0 GEO-HYDROLOGIC FEASIBILITY REPORT

2.1 Data Review -

A complete list of pertinent reports and data on the geo-hydrologic conditions in the study area should be provided. A complete and balanced summary that identifies areas where additional data are necessary should be included.

2.2 Geology -

The information submitted to describe the geology in the study area should include a description of each geologic unit found within the area and any structures which would respond as positive or negative hydrologic boundaries. The description should cover the area around the site, both laterally and vertically, to the estimated radius of impact of the recharge activity on the receiving groundwater system. Geologic cross-sections and appropriate maps on a 7.5' topographic base should be provided for the estimated area of impact of the project. The source of the data should be supplied by citing the appropriate references.

Geologic Units

A description of each of the major geologic units found within the study area should include the following:

- Description of major rock types found in each of the geologic units (bedrock, alluvium, etc.).

- Variations in grain size, compaction, induration, and porosity of the geologic material.

- Location of each of the units and the unit's relative vertical position in the geologic column (state which unit is above or below another unit).

- Summary of water bearing characteristics of the units.

Structures

The presence of any faults, fractures, fissures, or other types of geologic structures which would tend to increase lateral flow or inhibit vertical infiltration should be identified.

2.3 Groundwater -

A description of the hydrology of the receiving groundwater system and overlying vadose zone should be provided. The description should cover the site, both laterally and vertically, to the estimated radius of impact of the recharge activity on the regional groundwater system. Cross-sections and appropriate maps should be provided on a 7.5' topographic base for the area of impact of the project. The source of the data should be supplied by citing the appropriate references.

Water Levels

A discussion of water levels in the aquifer should include the following:

- Unconfined or confined aquifer conditions.
- Present and historic depths to water with corresponding location(s) and date of measurement(s).
- Variations and trends in water levels.
- Average rate of decline or rise in water levels.
- Expected rise in water levels due to the mounding potential of the recharge project. (Analysis of impact should be provided.)

- Locations, logs, construction details, and hydrographs for wells measured.

Aquifer Characteristics

A description of pertinent aquifer characteristics should include the following:

- Aquifer thickness and depth from land surface to top of aquifer.

- Estimation of aquifer coefficients including horizontal and vertical permeability, storage coefficient, effective porosity, and transmissivity. Estimated values should be documented by explaining methodology and showing calculations.

- Existing and historic flow directions and velocities for the groundwater system; effect of the recharge project on groundwater flow directions and velocities.

Water Quality

The water quality of the groundwater system receiving the recharge water should be described for all chemical and biological parameters that may be affected by the project. Chemical, biological, or physical reactions which would tend to reduce the receiving capacity of the groundwater system should be described, as should reactions which would degrade water quality.

2.4 Storage Potential -

The storage potential of the aquifer and overlying vadose zone should be estimated. The anticipated time to achieve maximum storage should be estimated and the area of hydologic impact clearly delineated. Factors such as allowable or achievable mound rise, nearby groundwater pumping, geologic aspects of the site, and impacts of adjacent water users should be addressed.

2.5 Summary and Conclusions -

The purpose of the summary and conclusions section is to summarize geo-hydrologic conditions of the study area. After providing a hydrologic overview, the conclusions regarding compatibility of the recharge method chosen with the receiving aquifer should be noted. These conclusions can be determined by evaluating the following: recharge

water and groundwater quality, infiltration rates, subsurface impeding layers, vadose zone and aquifer thickness, mounding potential, recoverable storage capacity, proximity to well field cone of depression, topography.

INSTRUCTIONS TO ASSIST IN PREPARING AN APPLICATION FOR A PERMIT TO APPROPRIATE PUBLIC WATERS OF THE STATE OF ARIZONA

The application must be filed with an original signature and be accompanied by:

A. Examination fee of $25.00.

B. United States Geological Survey quadrangle map with point of diversion and place(s) of use clearly marked on the map.

1. Complete name of applicant, current street address and telephone number. If a corporation, give name and title of authorized agent.

2. Name of the direct source of water, description of source and its tributaries. This application is a permit to appropriate "surface water", which is defined as meaning "the waters of all sources, flowing in streams, canyons, ravines or other natural channels, or in definite underground channels, whether perennial or intermittent, flood, waste or surplus water, and of lakes, ponds and springs on the surface." A groundwater right may not be acquired by means of this application.

3. Describe the proposed beneficial use(s).

A. Domestic - number of persons in each family which will use domestic water.

B. Municipal - population to be served and an estimate of the future population and water use requirements.

C. Irrigation - complete legal description and number of acres which will be irrigated (not the total acreage owned) and type of crop you intend to irrigate.

D. Stockwatering - kind and number of livestock which will use this source on an average daily basis.

E. Power - nature of the works by which power is to be developed, pressure head, points of release of water and the uses to which the power will be applied.

F. Mining - location and character of the mines to be served and the methods of supplying and using the water.

G. Recreation or wildlife, including fish - location and character of the area to be used and the specific purposes for which such area shall be used; describe kind and number of wildlife.

4. Provide reasonably accurate amounts of water for each use and the specific period of use. Irrigation should be shown in acre feet and other uses preferably in gallons per minute or acre feet of water. There are 325,851 gallons in one acre foot of water.

5. Legal description of the proposed point of diversion. Provide a quarter/quarter/section description.

6. Legal description of the proposed place(s) of use. Provide a quarter/quarter/section description.

7. Describe in detail how you will divert, store and use the water. Describe pumps, pipelines, canals, ditches, dams and reservoirs.

8. Provide storage capacity of each proposed reservoir in acre feet, dimensions and description of the land to be submerged.

9. Explain the planned construction schedule.

10. Name of the person or agency which owns the land where the water source is located. Identify leases or permits by name, agency and terms.

THE APPLICANT SHOULD KEEP A COPY OF THE COMPLETED APPLICATION FOR HIS/HER REFERENCE BEFORE SUBMITTING THE ORIGINAL TO THE DEPARTMENT OF WATER RESOURCES.

ARIZONA DEPARTMENT OF WATER RESOURCES
99 East Virginia Avenue
Phoenix, Arizona 85004

APPLICATION FOR A PERMIT TO APPROPRIATE PUBLIC WATER OF THE STATE OF ARIZONA

NO. _____

FILED _____

1. Name _____ Telephone _____

   Address _____

2. Source name, if any, and type: _____,

   a tributary of _____ on the _____ watershed.
   do not complete

3. Use of water

   A. Domestic
      1. No. of Persons _____ 2. No. of Families _____

   B. Municipal
      1. Population to be served _____
      2. Estimate of future population and water requirements _____

   C. Irrigation
      1. Location of the irrigated acreage
         _____ ¼ _____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ E/W
         _____ ¼ _____ ¼ _____ ¼, Section _____, Township _____ N/S, Range _____ E/W
      2. Number of acres to be irrigated _____
      3. Describe type of crop to be irrigated _____

   D. Stockwatering
      1. Kind of stock _____ 2. No. of stock _____

   E. Power — Describe the nature of the works by which power is to be developed, pressure head, points of release of water and the uses to which the power will be applied.

   F. Mining
      1. Kind of mining claims _____
      2. Methods of supplying and using water _____
      _____

   G. Recreation
      1. Character of area to be used _____

   H. Wildlife
      1. Kinds of wildlife _____
      2. Character of area to be served _____
      _____

4. Amount of water

Use	Amount	Measure	Months of use
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

5. Legal description of point of diversion: County _____
_____ ¼ _____ ¼, Section _____ , Township _____ N/S, Range _____ E/W, G&SRB&M.

6. Legal description of place of use: County _____
_____ ¼ _____ ¼, Section _____ , Township _____ N/S, Range _____ E/W, G&SRB&M,
_____ ¼ _____ ¼, Section _____ , Township _____ N/S, Range _____ E/W, G&SRB&M.

7. Description of proposed works by which water will be put to beneficial use: _____
_____
_____

8. Storage of water

A. Name of reservoir _____

B. Dam specifications: Height _____ feet
Does dam have an outlet structure other than spillway? Yes _____ No _____

C. Reservoir behind dam

1. Maximum storage volume at spillway crest _____ acre feet
2. Maximum length _____ feet
3. Maximum width _____ feet
4. Maximum depth of water at spillway crest _____ feet
5. Capacity for each foot in depth in cubic feet _____
_____
_____

9. Construction of works will begin within _____ after approval of this application, will be completed within _____ thereafter, and the water will be applied to the proposed use(s) no later than _____ .

10. Name of owner of the land _____
Do you have legal access to the point of diversion and place of use? Yes _____ No _____
If no, explain _____

11. Additional comments _____
_____
_____
_____
_____

12. Attach filing fee of $25.00.

13. Attach United States Geological Survey quad map with point of diversion and place of use clearly marked on map.

Dated this _____ day of _____ , 19 _____ .

_____
Applicant

10. Attach proof of denial of service or inaction on a service request by a city, town, or private water company if the location of the applicant's intended use is within three miles of the exterior boundaries of the service area of such city, town or private water company. (Attach supporting documentation.) This is not required for an expanded animal industry use as defined in ARS §45-402.

11. Attach studies of the probable hydrologic impact on the groundwater resources which the applicant proposes to use, including evidence of the availability of an assured water supply for the intended use.

12. Applicant proposes to withdraw groundwater from:

_____Existing well or wells Registration No(s). 55-_____ 55-_____
_____New well or wells

III PROPOSED WELL DATA: (To be completed only if a new well is to be drilled or existing well modified.)

1. Location of well:_____ ¼ _____ ¼ _____ ¼ of Section_____
Township_____ N/S Range _____E/W.

2. Owner of well (if same as applicant) check this box ☐

_____
Name Address City State Zip

3. Depth of well:_____ feet

4. Diameter of casing: _____ inches

5. Type of casing_____

6. Design pump capacity_____ GPM

7. Construction will start about: _____

_____

8. Name and address of driller:

_____
Name

_____
Address

_____
City State Zip

_____
DWR License Number

The above described well shall be completed within one year of receipt of the permit. If the well is not completed within one year, the applicant shall file a new application for a permit under the provisions of ARS §45-598. The construction of the well must be under the direct and personal supervision of the licensed well driller designated on this form, unless the permittee, prior to the commencement of drilling, provides written notice to the Department of a change in licensed driller.

EXPLANATORY:

_____

_____

_____

It is understood that the permit, if granted, will be in accordance with the Groundwater Management Act of 1980, and that the permittee will be bound by the provisions of such law and the provisions of the permit issued pursuant hereto.

I, _____ state that the information contained in this application is true and correct to my best belief and knowledge.

_____ _____
Date Signature of Applicant

DEPARTMENT OF WATER RESOURCES
99 East Virginia
Phoenix, Arizona 85004

APPLICATION FOR PERMIT TO WITHDRAW GROUNDWATER
for a
GENERAL INDUSTRIAL USE WITHIN AN ACTIVE MANAGEMENT AREA
(ARS 45-515)

I INSTRUCTIONS:

1. COMPLETE ALL APPROPRIATE ITEMS ON THIS APPLICATION AND SIGN IN DESIGNATED PLACE.
2. Mail to 99 East Virginia, Phoenix, Arizona 85004.
3. Application fee is $50.00.
4. Permit fee of $50.00 will be requested prior to issuance of permit.
5. Use explanatory section on back for clarification, if necessary.

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Application No._____
(Registration)
Permit No._____
File No._____
Filed _____ By_____
Input_____ By_____
Duplicate
Mailed_____ By_____
AMA_____

II GENERAL DATA:

1. NAME OF APPLICANT_____

_____
Mailing address City State Zip Code Telephone Number

2. Applicant is_____ Owner_____ Lessee _____ Other (explain)_____

3. Well is located in the _____sub-basin of the _____Active Management Area.

4. Name of owner of land from which groundwater will be withdrawn. If same as applicant, check this box ☐

_____
Name Address City State Zip

5. Legal description of the land on which the groundwater will be used.

_____

_____Township____N/S Range _____ E/W

6. Name and address of the owner of land where water will be used. If same as applicant, check this box ☐

_____
Name Address City State Zip

7. The specific purpose for which groundwater will be withdrawn:_____

_____

8. Amount of groundwater for which application is being made: _____acre feet per year for _____years. Please provide supporting documentation for your stated need.

9. What is the estimated cost the applicant would incur in withdrawing groundwater at the point where a wellhead or distribution system would otherwise be? $_____

_____

8. Estimated time to complete the well_____. (If longer than one year, attach explanation.)

9. Well is located in the _____sub-basin of the _____ Active Management Area.

10. Groundwater will be used in the _____basin of the _____ Active Management Area.

11. Is the proposed wellsite within 100 feet of a septic tank system, sewage disposal area, landfill, hazardous waste facility or storage area of hazardous materials? Yes__ No__ If yes, a request for a variance must accompany this application pursuant to R12-15-820.

III DATA FOR REPLACEMENT WELL:

12. DWR registration number of the existing well is 55-_____. Location of the original well: _____¼,_____¼,_____¼ of Section _____, Township_____, Range_____, Depth_____feet, diameter_____ inches.

13. Distance between existing well and replacement well is _____feet.

14. Will the existing well(s) be abandoned if applicant receives this permit to drill a well?_____ If answer is yes, Form DWR 55-46-12/83 must be submitted to this Department within 30 days after abandonment. If answer is no, explain the planned use of the existing well(s):_____

_____

_____

_____

IV DATA FOR CONVERSION OF EXISTING WELL:

15. DWR registration number of the existing well is 55-_____. The present pump design capacity of the existing well is _____gallons per minute.

16. The new design pump capacity will be _____ gallons per minute.

17. The well will pump _____acre feet per annum.

18. The existing well has previously been used in conjunction with or for the following:_____

_____

_____

V It is understood that the permit, if granted, will be in accordance with the Groundwater Management Code (Title 45, Chapter 2,) The permittee will be bound by the provisions of such law and the provisions of the permit issued.

Signature of Applicant_____Date_____

DEPARTMENT OF WATER RESOURCES (DWR)
99 East Virginia
PHOENIX, ARIZONA 85004

APPLICATION FOR A PERMIT TO DRILL OR OPERATE A NON-EXEMPT, NON-SERVICE AREA WELL WITHIN AN ACTIVE MANAGEMENT AREA, PURSUANT TO A.R.S. §45-599.

INSTRUCTIONS:

I 1. This Application should be used to obtain a permit to:

(a) Drill a non-exempt well in conjunction with a General Industrial Use, Groundwater Withdrawal Permit, or a Certificate of Grandfathered Rights.

(b) Convert (enlarge) an existing well to a non-exempt use.

2. CITIES, TOWNS, PRIVATE WATER COMPANIES OR IRRIGATION DISTRICTS WISHING TO DRILL OR OPERATE A SERVICE AREA WELL SHOULD USE DWR FORM 55-64-3/84.

3. Complete all appropriate items on this application, sign in the appropriate place and mail to 99 East Virginia, Suite 100, Phoenix, Arizona 85004.

4. Application fee is $20.00. A permit fee of $30.00 will be requested when permit is approved for issue.

5. If multiple wells are involved or if the proposed design pump capacity is in excess of 500 gallons per minute, the applicant must attach a hydrological study which delineates projected declines in water levels due to the operation of the proposed well or wells as required by Department Rule R12-15-830.

Applicant _____

Address _____

City _____ State _____ Zip _____

Telephone _____

Land Owner _____

Address _____

City _____ State _____ Zip _____

Telephone _____

Driller _____ Dept. License _____

City _____ State _____ Zip _____

DO NOT WRITE IN THIS SPACE
OFFICE RECORD

Application No. 55-_____
(Registration)
Permit No. T-_____
File No. _____
Filed _____ By _____
Date of Receipt of Complete and Correct Application
_____ By _____
Input _____ By _____
Permit Mailed _____ By _____
AMA _____
W/S _____ S/B _____

II DATA ON PROPOSED WELL:

1. Applicant is: _____ Owner _____ Lessee

2. Proposed Well is:

New Well ☐
Conversion (enlargement) of an Existing Well ☐
Replacement Well in new location ☐

3. Claim of entitlement to withdraw groundwater is based upon:

☐ Certificate of Grandfathered Right. Certificate 58_____
☐ Groundwater Withdrawal Permit. Permit P-_____
☐ Application for General Industrial Use, Groundwater Withdrawal Permit. Application No. 55-_____

4. Specific Well data:

WELL LOCATION

Township _____
Range _____
Section _____
_____¼, _____¼, _____¼,

5. County _____ Type of casing _____
Depth _____ ft. Diameter _____ in. Design pump capacity _____ gallons per minute

6. Proposed annual volume _____ acre feet

7. The principal use(s) of groundwater will be (be specific) _____

_____

8080

ACCU-LABS RESEARCH, INC.

11485 W. 48th Ave. • Wheat Ridge, Colorado 80033 • (303) 423-2766

SAMPLE ACKNOWLEDGMENT

DMEA LTD.
APR 27 1987
RECEIVED

To: A.J. Fernandez
A.F. Budge (Mining) Ltd.
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ 85251-3335

ALR Job Number: 9416-24121-1

Date received: 4-22-87 Client P.O.# or Authorization

Anticipated analysis completion date: 5-11-87

Condition of samples: Okay

Samples received: Water AFB 1

Analyses: Cyanide, Arsenic, Barium, Cadmium, Chromium, Fecal Coliforms, BOD, Lead, Mercury, Nitrate, Selenium, Silver, Fluoride, Gross Alpha/Beta, Herbicides & Pesticides.

By Mary Fabisiak

Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

May 8, 1987

DMEA LTD.
MAY 1 1987
RECEIVED

A.J. Fernandez
A.F. Budge (Mining) Ltd.
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ 85241-3335

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

REPORT OF ANALYSIS

ALR Designation	9416-24121-1-1
Sponsor Designation	AFB1
	4-22-87
Determination: mg/L	
Cyanide	<0.005
Arsenic, total	<0.005
Barium, total	<0.2
Cadmium, total	<0.005
Chromium, total	0.006
Fecal Coliforms, Colonies per 100 mLs	<1
BOD	<2
Lead, total	<0.005
Mercury, total	0.0002
Nitrate (as N)	1.1
Selenium, total	<0.005
Silver, total	0.011
Fluoride	2.8
Pesticides:	
Lindane	<0.004
Endrin	<0.0002
Methoxychlor	<0.1
Toxaphene	<0.005
Herbicides:	
2,4-D	<0.1
2,4,5-TP (Silvex)	<0.01

Accu-Labs Research, Inc.

A.J. Fernandez
A.F. Budge (Mining) Ltd.

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

REPORT OF ANALYSIS

ALR Designation	9416-24121-1-1
Sponsor Designation	AFB1 4-22-87
Determination: mg/L	
Gross Alpha, total, ± counting error*, pCi/L	22 ± 7
Gross Beta, total, ± counting error*, pCi/L	3 ± 3

Per phone with TOM BALKA 6/16/87
URANIUM 0.050 mg/l
RADIUM 226 0.2±0.2 pC/l

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 30 days after the date of this report.

Mary Fabisiak
for Cathy Shugarts
Water Laboratory
Supervisor

Chris Shugarts
Organics Chemistry
Supervisor

Bud Summers
Radiochemistry
Supervisor

CS/CS/BS/dh dh

Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

June 16, 1987

A.J. Fernandez
A.F. Budge (Mining) Ltd.
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ 85241-3335

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

ADDITIONAL ANALYSIS	REPORT OF ANALYSIS
ALR Designation	9416-24121-1-1
Sponsor Designation	AFB1
	4-22-87
Determination: pCi/L	
Radium-226, total, ± counting error*	0.2 ± 0.2
Uranium (as U), total, mg/L	0.050

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 45 days after the date of this report.

Bud Summers
Radiochemistry
Supervisor

BS/dh dh

Accu-Labs Research, Inc.
11485 W. 48th Avenue Wheat Ridge, Colorado 80033
(303) 423-2766

June 16, 1987

A.J. Fernandez
A.F. Budge (Mining) Ltd.
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ 85241-3335

RE: 9416-24121-1
Date Samples Rec'd 4-22-87

ADDITIONAL ANALYSIS	REPORT OF ANALYSIS
ALR Designation	9416-24121-1-1
Sponsor Designation	AFB1
	4-22-87
Determination: pCi/L	
Radium-226, total, ± counting error*	0.2 ± 0.2
Uranium (as U), total, mg/L	0.050

*Variability of the radioactive disintegration process (counting error) at the 95% confidence level, 1.96σ.
These samples are scheduled to be discarded 45 days after the date of this report.

Bud Summers
Radiochemistry
Supervisor

BS/dh dh

P E R M I T

PERMIT NO. P-516981 FILE NO. B(6-5)31 b

STATE OF ARIZONA REGISTRATION NO. 55-800940

Approval is herein granted, pursuant to A.R.S. 45-519.01, for the Permittee to construct and/or operate a well or wells for hydrologic testing. This approval is expressly limited to the specific location, withdrawal limitations, testing purpose and duration as set forth below. If the Permittee wishes the Department to review the imposition of any of the limitations or special conditions, he may ask for such a review within fifteen (15) days of receipt of this Permit. Such a request must be made prior to the commencement of drilling. The well(s) authorized by this Permit shall be drilled and constructed in accordance with applicable statutes and Department regulations.

Permittee A. F. Budge (Mining) Limited
7340 East Shoeman Lane, Suite 111 "B" (E), Scottsdale, Arizona 85251-3335

Active Management Area Phoenix Subbasin Hassayampa

Authorized purpose of hydrologic testing To determine well productivity capacity and water quality.

Total amount of groundwater to be withdrawn is 0.5 acre feet.

Duration of Permit: From March 17, 1987 to June 17, 1987

Land on which groundwater may be used N/A

Authorized well(s) from which groundwater may be withdrawn:

			Depth	Casing	Case Type
Registration No. 55-	800940	Location B(6-5)31 b	714'	6"	Steel
55-		Location			
55-		Location			
55-		Location			

CONDITIONS OF THE PERMIT:

- The drilling of the well(s) and completion of testing must be accomplished within 90 days from date of the issue of drilling authority.
- Within 60 days upon completion of logging and testing, the permittee shall provide the results of the test data to our Hydrology Division for evaluation.
- This approval for a test well(s) and a pump test does not constitute a commitment by the Department for the granting of a withdrawal permit or converting the test well into a production well.

Witness my hand and seal of office this 17th day of March, 1987.

Herb Dishlip

Herb Dishlip, Deputy Director

DWR-55-80-9/85

Arizona Department of Water Resources

99 East Virginia Avenue
Phoenix, Arizona 85004
(602) 255-1553

Evan Mecham, Governor
Alan P. Kleinman, Director

March 23, 1987

A. F. Budge (Mining) Limited
7340 East Shoeman Lane, Suite 111 "B" (E)
Scottsdale, Arizona 85251-3335

DMEA LTD.
MAR 25 1987
RECEIVED

Registration No. 59-516981
File No. B(6-5)31 b

Dear Permittee:

Enclosed for your records is your permit.

For your future use, a Change of Well Information form is also enclosed. Under A.R.S. §45-593, the person to whom a well is registered must notify this Department of a change in ownership of the well and must furnish the Department any information pertaining to the physical characteristics of the well necessary to keep the well registration records current and accurate. The permit itself may be conveyed only in accordance with A.R.S. §45-520.

Sincerely,

Richard A. Gessner
Chief, Operations Division

RAG: rh
Enclosures

DWR-55-77-4/85 Revised

Well test DATA Vulture Mine 4/21 - 4/22

Time	gallons	RATE (gpm)
9:35 am	0	
		54.0
9:40	270	
		66.0
9:45	600	
		62.0
9:50	910	
		58.0
9:55	1200	
		63.0
10:00	1515	
		55.0
10:20	2615	
		52.8
10:40	3670	
		52.0
11:00	4710	
11:20	5735	51.3
11:40	6770	51.8
12:00 pm	7785	50.8
12:21	8860	51.2
12:40	9825	50.8
1:00	10 845	51.0
1:20	11865	51.0
1:45	13 145	51.2
2:00	13 900	50.3
2:20	14920	51.0
2:40	15940	51.0
3:00	16960	51.0
3:20	18020	53.0

WELL TEST DATA VULTURE MINE 4/21 - 4/22

TIME	gallons	RATE (gpm)
		50.0
3:40	19020	51.0
4:00	20040	50.0
4:20	21040	51.0
4:40	22060	51.0
5:00	23080	51.2
5:30	24615	49.3
6:00	26095	52.7
6:31	27730	51.2
7:00	29215	51.2
7:30	30750	51.3
8:00	32290	51.6
9:00	35385	51.6
10:00	38480	51.8
11:00	41590	52.2
12:00 am	44720	53.4
6:35	65800	53.0
6:40	66065	

FROM 12 NOON, WHEN THE WELL APPEARS to be in A STEADY STATE, UNTIL SHUTDOWN AT 6:40, THE WELL PRODUCED AT AN AVERAGE RATE OF 52 gpm.

WELL TEST DATA VULTURE MINE 4/21 - 4/22

TANK CAPACITY

TO DETERMINE WATER TANK CAPACITY, THE WATER LEVEL IN THE TANK WAS MEASURED AT 11:00 AM AND 12:00pm. THE WATER LEVEL ROSE 5 INCHES DURING THAT TIME. 3075 GALLONS WERE PUMPED INTO THE TANK DURING THE SAME TIME PERIOD. THE TANK HAS A TOTAL DEPTH OF 134 INCHES. THEREFORE:

$$\frac{3075 \text{ gals}}{5 \text{ INCHES}} \times 134 \text{ INCHES} = 82{,}410 \text{ gallons}$$

THE TANK HAS A CAPACITY OF ABOUT 82,000 gals.

WATER LEVEL

WHEN THE NEW PUMP WAS INSTALLED A "SOUNDING" TUBE WAS INSTALLED. BY PUMPING AIR INTO THIS TUBE AND MEASURING THE PRESSURE, THE HEIGHT OF THE WATER COLUMN ABOVE THE PUMP CAN BE DETERMINED. UNFORTUNATELY, THE TUBE APPEARS TO BE LEAKING OR BROKEN. WHEN THE PUMP WAS INSTALLED, THE WATER LEVEL WAS DETERMINED TO BE 230 FEET ABOVE THE PUMP. BEFORE THE PUMP TEST WAS COMMENCED, ONLY 50 psi WAS READ ON THE SOUNDING TUBE. THIS EQUATES TO 115 FEET OF WATER.

WELL TEST DATA VULTURE MINE 4/21-4/22

AFTER PUMPING BEGAN, THE SOUNDING TUBE PRESSURE QUICKLY DROPPED TO 0 psi. THE FLOW RATE CONTINUED TO DECREASE FOR ANOTHER HOUR, INDICATING THE WATER LEVEL WAS STILL DROPPING IN THE WELL. SINCE FLOW NEVER STOPPED, I CAN ONLY CONCLUDED THAT THE SOUNDING TUBE IS BREACHED SOMEWHERE ABOVE THE PUMP; PROBABLY AT 175 FEET ABOVE THE PUMP. ANOTHER PIECE OF EVIDENCE TO SUBSTANTIATE THIS IS THE FACT THAT NO PRESSURE COULD BE HELD IN THE SOUNDING TUBE 15 MINUTES AFTER THE PUMP WAS SHUT OFF. IF THE SOUNDING TUBE WERE NOT BREACHED ABOVE THE PUMP, PRESSURE SHOULD HAVE BEEN OBSERVED.

WELL TEST DATA VULTURE MINE 4/21-4/22

ESTIMATE OF TOTAL HEAD ON PUMP DURING TEST

Pump set @ 690'

TO TANK 12'

TOTAL ELEVATION HEAD = 702'

PIPE LOSSES –

		Equ. Length of Pipe
2" 672' STEEL	2" STEEL	746.3
3" 18' STEEL	3" STEEL	34.4
1½" 100' PVC	1½" PVC	100
2 - 3" 90° steel (2X8.2)	1½" STEEL	.9
2 - 2" 90° steel (2X5.5)		
1½" GATE VALVE (.9)		
3 - 2" CHECK VALVES (3X21.1)		
meter ?		

HEAD LOSS @ 50 gpm (FT)

35	2" STEEL
.22	3" STEEL
23.1	1½" PVC
~	1½" STEEL

Pipe friction loss = 58.3 FT HEAD

WELL TEST DATA VULTURE MINE 4/21 - 4/22

Velocity head greatest in 1½" pipe

$\frac{v^2}{2g}$ = velocity head

50 gpm = 6.68 cu. FT/min

= .111 cu FT/sec

1.5" pipe X-sect AREA = 1.77 in^2 or .012 FT^2

Velocity = $\frac{VOL}{AREA}$ or $\frac{.111}{.012}$ = 9.25 FT/SEC

$H_{VEL.} = \frac{(9.25)^2}{2(32.2)} = 1.33$ FT

TOTAL HEAD = Vel. hd. + STATIC HEAD + FRICTION HEAD

= 1.33 + 702 + 58.3

= 761.6 FEET

$P = \frac{w\,Q\,h}{33{,}000\,e}$ where w = weight/gal H_2O; Q = gpm ; h = head
e efficiency factor

$P = \frac{(8.34)(52)(761.6)}{33{,}000\,(.67)} = 15$ hp ←

REPLACE 100' 1½" PVC with 2½" h becomes 740'

$\frac{(8.34)(X)(740)}{33000(.67)} = 15$ $\frac{15(33000)(.67)}{(8.34)(740)} = X$ or 54 gpm

RECEIVED JAN 2 1986

ETS ELECTRIC TOOL & SUPPLY CO.

7910 N.W. MARKET ST. • PEORIA, ARIZONA 85345

PHONE 878-0777

INVOICE 0583

DATE: 12-27-85

BILL TO: DMEA Ltd.
7340 E. Shoeman Ln
Suite 111 B East
Scottsdale Az 85251-3335

SHIP TO: Harry Loy
Attention
Bev F Dickerson III

PHONE: | CUSTOMER ORDER NO. | JOB NO:

TERMS: "Payable upon receipt of Invoice" | SHIP VIA | RECEIVED BY:

MODEL	SERIAL NO.	DATE RECEIVED	P.U.	P.P.	EXP.	U.P.	OTHER

ORDERED	SHIP	B.O.	DESCRIPTION	UNIT	TOTAL
	1		15 KW diesel Generator		5000 00
			trailer mounted		
			w/ air shut down unit		
			Amp & frequency meter		
			VM s/n 231409		
			Levy Somer s/n 65223/3		
			Warranty		
			6 mo.		
			600 hrs		
			G/L Subdist		300 00

RENTALS: FROM:

B/L NO:

SPECIAL INSTRUCTIONS:

RENTAL TAX	
LABOR	
TOTAL DUE	5300 00

INVENTORY CONTROL:

Sales . Rentals . Repairs .

RECEIPT OF ABOVE MERCHANDISE AND/OR SERVICE IS ACKNOWLEDGED. ACCOUNTS ARE DUE ON THE 10TH OF THE MONTH FOLLOWING DATE OF PURCHASE. I/WE AGREE TO PAY A 1½% MONTHLY SERVICE CHARGE IF MY ACCOUNT IS UNPAID BY THE END OF THE MONTH FOLLOWING DATE OF PURCHASE AND I/WE FURTHER AGREE TO PAY A REASONABLE ATTORNEY FEE AND COURT COSTS IF LEGAL ACTION BECOMES NECESSARY FOR COLLECTION. THIS PRODUCT IS SOLD AND/OR SERVICED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, AGAINST INJURIES RESULTING FROM ITS USE. OUR LIABILITY CEASES WHEN GOODS ARE DELIVERED TO YOU.

THE ELECTRIC TOOL & SUPPLY CO. RETAINS TITLE TO THE MERCHANDISE LISTED ABOVE UNTIL PAID FOR IN FULL.

Accepted By _____ Company _____ Del. By _____

WOODRUFF ELECTRIC & PUMP

P.O. BOX 758 • WICKENBURG, AZ 85358 • TELEPHONE (602) 684-2444

August 12, 1986

A.F. Budge Mining Limited
7340 E. Shoeman Lane
Suite 111 B-E
Scottsdale, AZ 85251

Re: Vulture Mine Operation

Work performed 8/11/86

- Installation of the materials listed on invoice # 4102.
- Pumped well to clear.
- Pumping rate started at approx. 84 GPM.
- After one hour of pumping + well draw down rate reduced to approx. 69 GPM.
- Rewind controls to permit push button operation of well pump.
- Trouble shooting of mag starter showed that overload relay in control is non-operative. (Will order replacement.)
- This pump is not to be run until overload relay is replaced.
- This entire installation requires rewiring as the existing wiring is both hazardous and undependable.

		Invoice #4102	$3,100.27
	9 3/4 hrs. Labor & Rig Time @50.00 hr.		487.50
		Balance	$3,587.77
	-Credits-		
8/7/86	Invoice # 4088	250.00	
8/7/86	Check # 1287	1,500.00	
8/8/86	Check # 1289	1,800.00	
	Credit Balance	3,550.00	-3,550.00
		Balance Due	$ 37.77

Thank You!

Bruce Woodruff

ESTIMATE OF Well REPAIR:

COST = $3639

CHECKS TO DATE $1750

COST TO complete $1889

NOTE: THIS NOT INCLUDE
EXTRA ELECTRICAL WORK —
(LIMIT SWITCH)

SUBSISTENCE EXPENSES

7/28 — 8/7

$771.89

1889
+ 772
$2661.00

WOODRUFF ELECTRIC & PUMP

160 W. Center P.O. Box 758
WICKENBURG, ARIZONA 85358
Phone 684-2444

CUSTOMER'S ORDER NO.	PHONE	DATE
		8/11/86

NAME A. F. Budge Mining

ADDRESS

SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT

QTY.	DESCRIPTION	PRICE	AMOUNT
1	6AM15-15 460V 3Ø		—
	Berkeley Sub Pump		—
	SN 1627843 Mtr Code	K85	1897 00
700'	8/3 Sub Pump Cable	.96	672 00
3	2" Bross CK Valves	43.00	129 00
2	Under Wtr splice Kits	27.00	54 00
21'	2" Gal. Riser Pipe	2.19	46 99
3	Rolls 2" Tape	5.29	15 87
1	2½ x 2 Hex Bush	—	5 19
1	2x 5 Gal Nipple	—	2 60
1	2" Mal. Coup	—	4 75
2	Rolls 3/4" Tape	1.45	2 90
695'	¼" Sounder Tube		104 25
1	0-100 Press Gauge	—	3 10
			2938 65
	5½%	TAX	161 62
RECEIVED BY		TOTAL	3100 27

4102

All claims and returned goods MUST be accompanied by this bill.

Thank You

WOODRUFF ELECTRIC & PUMP
160 W. Center - P.O. Box 758
Wickenburg, AZ 85358
602-684-2444

September 26, 1984

Vulture Mine Well
c/o Milton Hood
P. O. Box 20865
Wickenburg, AZ.
85358

9/17/84

- Pull customers' 15 H.P. pump as per proposal dated September 6, 1984. Findings were as follows:
  - Well diameter - 6" (8½" surface)
  - Well depth - 720'
  - Static Water Level - 430'
  - Pump Setting - 686' (672' of 2", 14'8" of 3")
  - Cable Size - 8/3 neoprene
  - Two (?) lengths of column pipe had holes in the threaded area.
  - One (1) 2" check valve was bad.
  - Pump cable had numerous nicks and rubbed areas.
  - Pump motor had a heavy ground (800,000 ohms to ground).

7000-8000 Ω on 8/5/86

- RECCOMENDATIONS MADE TO MILTON HOOD:
  - Replace pump and motor due to heavy ground.
  - Replace pump cable.
  - Replace both check valves (2").
  - Replace all 2" pipe below the water level.
- MR. HOOD'S DECISION:
  - Re-install pump and motor as is.
  - Replace both check valves.
  - Replace all pipe below the water line.
  - Use old pump cable.

9/20/84

- Re-installed customers' pump.
- Replaced 252' of 2" pipe.
- Replaced two (?) check valves.

$$I = \frac{E}{\sqrt{R^2 + (\omega L - 1/\omega C)^2}}$$

$\omega = 2\pi(60)$
$= 377$

60 gpm = 8.02 cuft/min
= .1337 cuft/sec

1.8" I.D. pipe = 2.55 in^2 = .0177 FT^2

.1337 / .0177 = 7.57 FT/sec

700 FT STATIC HEAD @ pump

TOTAL HEAD = vel head + STATIC HEAD + pressure $\rightarrow 0$

$= \frac{V^2}{2g} + 700$

$= \frac{(7.57)^2}{2(32.2)} + 700$

$= 700.8$

$HP = \frac{GX \text{ HEAD} \times 8.33}{33{,}000 \times E} = \frac{60 \text{ gpm} \times 700 \times 8.33}{33{,}000 \times E} = 15.1 \text{ hp}$

Assume E = 70%
HEAD = 700 FT

WOODRUFF ELECTRIC & PUMP

160 W. Center P.O. Box 758
WICKENBURG, ARIZONA 85358
Phone 684-2444

CUSTOMER'S ORDER NO.	PHONE	DATE
		8/7/86

NAME Pump - Vulture 945-4630

ADDRESS A.F. Budge (Mining) Limited

7340 E. Shoeman Lane

SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT
Scottsdale AZ 85251						

QTY	DESCRIPTION	PRICE	AMOUNT
-	to pull well pump		
-	Sound well		
-	analyze problems		
5 hours	rig time & labor @ 50.00 hour		250 00
V#1867	pd 8-7-86		- 500 00
	Credit Balance		(250 00)
		TAX	
RECEIVED BY		TOTAL	

4088

All claims and returned goods MUST be accompanied by this bill.

PRODUCT 610-3 NEBS Inc., Groton, Mass. 01471.

Thank You

ESTIMATE on Ultima Well

Pump 15hp —	$1897
CABLE 700'	672
Pipe 2" GALVANIZED	46
Ck VALVES 3	129
Supplies	100
Splice kit	27
Sounding line	110 w.th tax
LABOR Rig Time	500
TAX @ 5½%	158
	$3639

From Bruce Woodruff
on 8/7 3:15 pm
in office and over the phone

Does not include electrical work
on Relay

From The Desk Of

BRUCE WOODRUFF

August 27, 1986

Joe:

Enclosed please find the credit I spoke to you about for pick up of the pump in Phoenix by you.

My apologies for not sending this to you sooner. I have been so busy that I had inadvertently let this slip my mind.

It has been a pleasure doing business with you. Anytime I can be of service, please do not hesitate to call me.

Sincerely,

Bruce

Bruce K. Woodruff
Woodruff Electric
& Pump

BKW/el
Enc.

WOODRUFF ELECTRIC & PUMP

P.O. BOX 758 • WICKENBURG, AZ 85358 • TELEPHONE (602) 684-2444

August 27, 1986

A. F. Budge Mining Limited
7340 E. Shoeman Lane
Suite 111 "B" (E)
Scottsdale, AZ. 85251

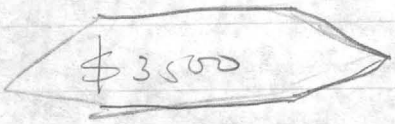
Original Statement Sent 8/12/86

Previous balance from 8/12/86	$37.77
CREDIT for pick up of pump by customer in Phoenix	37.77
BALANCE DUE	-0-

TANK HEIGHT 11'8" 120' diameter

690' to pump
430' to water level
Δ 260'.

pump	1897
CABLE	672
pipe	46
CK VALVES	129
Rig time 10 hrs	500
supplies	100
splice kit	
sounding tube	$110



$110 sounder tube —
700' cable ~~$690~~ 96¢/FT
pipe ~~$[illegible]~~ 1 STICK $46
3 ck valves 43 ea

Pump $1897 — 60-67 gpm 600'-650' HEAD

10 hrs rig time @ $50/hr -

motor not in stock
will p/u

Vulture Mine Road

1 mi S US 60

May 1996

One day count

58 cars

Source Maricopa County

Highway Dept

Core weight

6" core = 5 7/8" = 5.88 in

$\pi r^2 = 27.11$ sq in -

12 in = 1 FT

$12(\pi r^2) = 325.^{30}_{1728}$ ~~cu~~ cu. in.

$\div$ ~~1728~~ = .1883 cu. ft/FT

~~40 lbs/cu. ft~~

.12 cu. ft/ton

166.7 lbs/cu ft.

31.4 lbs/FT core

16 FT for 500 lb sample -

1992 ANNUAL WATER WITHDRAWAL AND USE REPORT

SUMMARY PAGE

AMA PHOENIX

PART I GROUNDWATER WITHDRAWN

From Line 10, Schedule A attached

Complete this section only if you operate a non-exempt well. If not, go to Part III below.

7.66	X	2.75	=	$ 21.07
ACRE-FEET		Withdrawal Fee		

PART II WATER DELIVERED TO OTHER RIGHTS

From Line 10, Schedule D attached

ACRE-FEET

PART III WATER RECEIVED FROM OTHER RIGHTS

Total from Part 1, 2 and 3, Schedule E attached

ACRE-FEET

PART IV TOTAL WATER USED BY THIS RIGHT

Calculate as follows: Part I + Part III - Part II

7.66 ACRE-FEET

PART V LATE FEES

Complete if filing after March 31. Note: A portion of a month after March 31 is counted as a full month

1) Enter number of months late 2 (Maximum of 6)

2) Calculate Late Report Fee ($25.00 x number of months late) $ 50.00

3) Calculate Late Payment Fee (10% x number of months late x withdrawal fee from Part I above) $ 6.33

WQARF FEE OWED, ATTACH WQARF SCHEDULE $ 16.25

TOTAL FEES DUE (add amounts in this column $ 93.64

ARIZONA DEPARTMENT OF WATER RESOURCES
15 SOUTH 15th AVENUE
PHOENIX, ARIZONA 85007
602-542-1581

DWR-AR-1-92

GROUNDWATER RIGHT DESCRIPTION AND NUMBER

TYPE OF RIGHT	RIGHT/PERMIT NO.
MINERAL EXTRACTION	59-516142.0000

ALLOTMENT: 100.00 AFA

Mail or hand deliver this report, together with the appropriate schedules, worksheets and fees to the Arizona Department of Water Resources. If mailed, the report must be postmarked no later than March 31, 1993. If hand delivered, the report must be received by the Department's Operation Division or local AMA office no later than 5:00 PM on March 31, 1993.

THIS REPORT MUST BE FILED EVEN IF NO WATER WAS USED ON THIS RIGHT.

REPORTS FILED AFTER MARCH 31, 1993 ARE SUBJECT TO LATE FEES AND PAYMENT OF PREVIOUSLY WAIVED MONETARY PENALTIES ASSOCIATED WITH PRIOR GROUNDWATER CODE VIOLATIONS. (ARS §45-632K)

I hereby certify, under penalty of perjury, that the information contained in this report is, to the best of my knowledge and belief, true, correct and complete.

X Carole A. O'Brien — AUTHORIZED SIGNATURE

Mining Coordinator — TITLE

May 28, 1993 — DATE

Carole A. O'Brien — PRINTED NAME

(602) 945-4630 — TELEPHONE NUMBER

OWNER OF GROUNDWATER RIGHT

AF BUDGE (MINING) LTD
4300 N. MILLER SUITE 121

SCOTTSDALE AZ 85251

REPORTING PARTY 59-516142.0000

AF BUDGE (MINING) LTD
4300 N MILLER
SUITE 121
SCOTTSDALE AZ 85251

If any of the information preprinted on this report is incorrect, please make the necessary changes.

A(1) G(1)
W1(1)

RIGHTHOLDER COPY - RETAIN

ARIZONA DEPT. OF WATER RESOURCES

WORKSHEET W-1

PUMPAGE MEASURED BY METER OR OTHER TOTALIZER RECORDER DEVICES

DWR-AR-9-89

GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

READ INSTRUCTIONS CAREFULLY

1. Enter DWR Well Registration No. & Location.

DWR WELL REGISTRATION NO.	LOCATION					
	Q	Q	Q	Sec	Twn	Rng
55-800940			NW	31	6N	5W

2. Enter type, make & model of measuring device used to measure flow. If measuring device is permanent, enter date installed or last overhauled.

TYPE OF MEASURING DEVICE	MAKE
MODEL	SIZE
UNITS MEASURED	INSTALLATION OR OVERHAUL DATE

3. Enter Power Co. Name, Account No., Meter No. and total energy consumption. Indicate units as KWH, therms or other measurement.

POWER CO. NAME	ACCOUNT NO.	POWER METER NO.

ENTER TOTAL ENERGY CONSUMPTION IN COLUMN 6 OF SCHEDULE A	ENERGY CONSUMPTION	UNITS

4. Does Energy Meter serve uses other than the well pump? ☐ YES ☐ NO
   Enter "Y" or "N" in column 7 of Schedule A

5. Enter water reading as of January 1, in (5). If your meter reads in 10s, 100s, or 1000s of units, be sure to add the correct number of zeros.

6. Enter ending reading as of December 31, in (6). If the totalizer dial has rolled over during the year, enter the number 1 in front of the reading, if twice, a 2, etc.

7. Subtract reading in (5) from reading in (6) and enter the difference in (7).

WATER TOTALIZING METER READINGS		
(5) INITIAL	(6) ENDING	(7) DIFFERENCE

If meter was replaced during the year, indicate beginning and ending reading for each meter.

8. Convert the Total Amount Pumped to acre feet by using the appropriate conversion.

   - If meter reads in gallons, divide (7) by 325,851 and enter the result below.
   - If meter reads in cubic feet, divide (7) by 43,560 and enter the result below.
   - If meter reads in acre-feet, no conversion is necessary.

20 g.p.m. x 8 hrs./day x 5 days/ week x 52 weeks

ACRE FEET	7.66

9. If your meter malfunctioned during the year, enter the estimate of withdrawals in acre-feet made during the out-of-service period, as indicated on Meter Malfunction report.

BREAKDOWN ESTIMATE	

10. Add (8) and (9) and enter result below and in column 4 of Schedule A for each well measured.

TOTAL IN ACRE-FEET	7.66

THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A

RIGHTHOLDER COPY - RETAIN

SCHEDULE A

REPORT OF GROUNDWATER WITHDRAWALS

AMA - PHOENIX

ARIZONA DEPT. OF WATER RESOURCES
DWR-AR-2-92

INSTRUCTIONS

Enter groundwater right number and owner name, if not already shown, in (1)
Enter DWR well registration number and location of each well, if not already shown, in (2)
Enter power company name, account number and meter number, if not already shown, in (3)
Enter total acre-feet of groundwater withdrawn for each well, as calculated on attached worksheets, in (4)
Enter device type used to measure withdrawals, if not already shown, in (5) (see list below).
Enter energy consumed by well and units of measure from appropriate worksheet in (6)
If energy meter serves uses other than the well, indicate "Y" in (7) If energy meter does not serve other uses (meter is dedicated to the well) indicate "N" in (7)
If device types 2 through 6 are used, indicate the average discharge and divider or total hours from the appropriate worksheet in (8) and (9)
Enter grand total acre-feet withdrawn in (10) and in Part I of the Summary Page

DEVICE TYPE

1. Pumpage measured by meter or other totalizer/recorder devices (use worksheet W-1)
2. Pipeflow with pumpage calculated using electrical energy records (use worksheet W-2)
3. Pipeflow with pumpage calculated using natural gas energy records (use worksheet W-3)
4. Open channel flow with pumpage calculated using electrical energy records (use worksheet W-4)
5. Open channel flow with pumpage calculated using natural gas energy records (use worksheet W-5)
6. Pumpage calculated using hour meters (use worksheet W-6)

(1) GROUNDWATER RIGHT/PERMIT NO.: 59-516142.0000

(1) OWNER: AF BUDGE (MINING) LTD

NOTE: A COMPLETE WORKSHEET MUST BE ATTACHED FOR EACH WELL FROM WHICH WATER WAS WITHDRAWN

(2) DWR WELL REGISTRATION NUMBER	(2) LOCATION Q Q Q Sec Twn Rng	(3) POWER CO. NAME ACCOUNT NO.	METER NO.	(4) GROUNDWATER WITHDRAWN IN ACRE-FEET	(5) DEVICE TYPE	(6) ENERGY CONSUMPTION (Indicate Units)	(7) OTHER ENERGY USES (Y/N)	FOR DEVICE TYPES 2 thru 6 ONLY (8) AVERAGE DISCHARGE	(9) DIVIDER OR TOTAL HOURS
55-800940	NW 31 060N050W			7.66	xlsx		N		
		(10) TOTAL ACRE-FEET WITHDRAWN		7.66					

MEASURING DEVICE MALFUNCTION

Pursuant to A.C.R.R. R12-15-905, a measuring device that fails to perform for more than seventy two (72) hours must be reported to the Department of Water Resources within seven (7) calendar days after the discovery of the malfunction. Corrective action must be taken as soon as practicable, and estimates of withdrawals made during the period the device was out of service must be provided. A Measuring Device Malfunction Report is available on request.

ENTER TOTAL ACRE-FEET OF GROUNDWATER WITHDRAWN IN PART I ON SUMMARY PAGE

RIGHTHOLDER COPY - RETAIN

WQARF SCHEDULE

SCHEDULE FOR DETERMINING WHICH GROUNDWATER WITHDRAWALS ARE SUBJECT TO PAYMENT OF WQARF AND FOR CALCULATION OF FEES DUE

AMA - PHOENIX

ARIZONA DEPT. OF WATER RESOURCES
DWR-WQARF-92

A.R.S. § 45-616 requires that the Department of Water Resources collect a water quality assurance fee for deposit to the Water Quality Assurance Revolving Fund (WQARF) established pursuant to A.R.S. § 49-292.

1. The WQARF fee is applicable ONLY to groundwater that is both:
   - A. Withdrawn pursuant to a TYPE I or TYPE II non-irrigation right or a groundwater withdrawal permit.
   - B. Put to a beneficial use.
2. The WQARF fee is NOT applicable to:
   - A. Surface water, effluent, recovered effluent, spill water or other types of water besides groundwater.
   - B. Any water that is subject to the tax on potable water imposed by A.R.S. § 42-1552, (i.e., water delivered to customers by cities, towns and private water companies).
   - C. Groundwater received from a source other than a city, town, private water company or irrigation district.
3. For specific questions pertaining to calculating the amount of WQARF fee that a particular groudwater right may owe, contact the office of the Active Management Area in which the right is located.

TYPE I, TYPE II, OR PERMIT NO.

59-516142.0000

NAME OF OWNER

AF BUDGE (MINING) LTD

WQARF FEE CALCULATION

I. Total groundwater withdrawn by this right as reported on PART I of the Annual Water Withdrawal and Use Report Summary Page. **A.** 7.66 Acre Feet

II. Groundwater withdrawn by this right and **NOT** subject to the WQARF fee.

1. Groundwater withdrawn but subject to the tax on potable water imposed by A.R.S. § 42-1552. Must be withdrawn by a city, town or private water company and be used as part of their service area deliveries, not for resale.

   _____ Acre Feet

2. Groundwater withdrawn and; i. not put to a beneficial use by this right or ii. not delivered to another right for any beneficial use.

   a) Drainage _____ Acre Feet

   b) Dewater _____ Acre Feet

   c) Poor Quality _____ Acre Feet

   d) Other _____ Acre Feet

   TOTAL OF 1 AND 2 ABOVE **B.** 0 Acre Feet

III. WQARF fees owed: **A. - B.** = 7.66 acre feet x $2.12 per acre foot = **$** $16.24

NOTE: WQARF fees **MUST BE REPORTED AND PAID** at the time the Annual Water Withdrawal and Use Report is filed and the withdrawal fees paid, but **NOT LATER THAN MARCH 31ST** of each year for the previous calender year.

IV. Transfer the amount of WQARF fees calculated in Part III to the bottom of the Summary Page, and add it to the withdrawal fees for the total amount due.

RIGHTHOLDER COPY - RETAIN

DEPARTMENT OF WATER RESOURCES
ANNUAL WATER USE REPORT
SCHEDULE G-5
GENERAL INDUSTRIAL USERS

CALENDAR YEAR 1992
RIGHT OR PERMIT NUMBER 59 - 516142.0000

Facility Name: Vulture Mine
Contact Person: Carole A. O'Brien
Address: c/o A.F. Budge Mining Limited
Phone: (602) 945-4630
4300 N. Miller Road, Suite 121, Scottsdale, AZ 85251-3620

Persons holding one or more Type 1 or Type 2 non-irrigation Grandfathered Right(s), and/or withdrawal permits totaling over 10 acre-feet per year are required to supply the following information for the calendar year 1992. This information is required under provisions of the Second Management Plan section §6-103.

****

PART 1 - DESCRIPTION OF WATER USES

Please describe the primary purposes for which water from any source, including effluent, is used.

fresh water used to rinse heap leach piles for purpose of detoxification

PART 2 - AMOUNTS USED FOR VARIOUS PURPOSES

Please provide metered quantities of water used annually from any source, including effluent, for the following purposes:

industrial process water	6-8	**AF**
process cooling water		**AF**
process cleaning water		**AF**
space cooling water		**AF**
landscape watering		**AF**
other (please specify)		**AF**

PART 3 - WASTEWATER PRODUCTION AND USE

Please provide estimates of the amount of wastewater used in 1992.

wastewater generated		**AF**
wastewater reused		**AF**

1991 ANNUAL WATER WITHDRAWAL AND USE REPORT

SUMMARY PAGE

AMA PHOENIX

PART I GROUNDWATER WITHDRAWN

From Line 10, Schedule A attached

Complete this section only if you operate a non-exempt well. If not, go to Part III below.

25.00	X	2.40	=	$ 60.00
ACRE-FEET		Withdrawal Fee		

PART II WATER DELIVERED TO OTHER RIGHTS

From Line 9, Schedule D attached

ACRE-FEET

PART III WATER RECEIVED FROM OTHER RIGHTS

From Line 8, Schedule E attached

ACRE-FEET

PART IV TOTAL WATER USED BY THIS RIGHT

Calculate as follows: Part I + Part III - Part II

25.00	X	2.12	=	$ 53.00
ACRE-FEET		Water Quality Assurance Fee		

PART V LATE FEES

Complete if filing after March 31

1) Enter number of months late 3

Note: A portion of a month after March 31 is accounted for as a full month

2) Calculate Late Report Fee ($25.00 x number of months late) $ 75.00

3) Calculate Late Payment Fee (10% per month of the withdrawal fee calculated in Part I above) $ 18.00

TOTAL FEES DUE (add amounts in this column) $ 206.00

ARIZONA DEPARTMENT OF WATER RESOURCES
15 SOUTH 15th AVENUE
PHOENIX, ARIZONA 85007
602-542-1581

DWR-AR-1-91

GROUNDWATER RIGHT DESCRIPTION AND NUMBER

TYPE OF RIGHT	RIGHT/PERMIT NO.
MINERAL EXTRACTION	59-516142.0000

GENERAL LOCATION:
06 050N 050W

ALLOTMENT: 100.00 AFA

Mail or hand deliver this report, together with the appropriate schedules, worksheets and fees to the Arizona Department of Water Resources. If mailed, the report must be postmarked no later than March 31, 1992. If hand delivered, the report must be received by the Department's Operation Division or local AMA office no later than 5:00 PM on March 31, 1992.

This report must be filed even if no water was used on this right.

REPORTS FILED AFTER MARCH 31, 1992 ARE SUBJECT TO LATE FEES AND PAYMENT OF PREVIOUSLY WAIVED MONETARY PENALTIES ASSOCIATED WITH PRIOR GROUNDWATER CODE VIOLATIONS. (ARS §45-632K)

I hereby certify, under penalty of perjury, that the information contained in this report is, to the best of my knowledge and belief, true, correct and complete.

X Carole A. O'Brien — Coordinator — 6-23-92

AUTHORIZED SIGNATURE | TITLE | DATE

Carole A. O'Brien — (602) 945-4630

PRINTED NAME | TELEPHONE NUMBER

OWNER OF GROUNDWATER RIGHT

AF BUDGE (MINING) LTD
~~xxxxxxxxxxxxxxxxxxxxxxxxx~~
4300 N. Miller, Suite 121
SCOTTSDALE AZ 85251

effective:
July 1, 1992

REPORTING PARTY 59-516142.0000

AF BUDGE (MINING) LTD
~~xxxxxxxxxxxxxxxxxxxxxxxxx~~
4300 N. Miller, Suite 121
SCOTTSDALE AZ 85251

If any of the information preprinted on this report is incorrect, please make the necessary changes.

A(1)G5(1)
W1(1)

RIGHTHOLDER COPY - RETAIN

ARIZONA DEPT. OF WATER RESOURCES

WORKSHEET W-1

PUMPAGE MEASURED BY METER OR OTHER TOTALIZER RECORDER DEVICES

DWR-AR-9-89

GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

READ INSTRUCTIONS CAREFULLY

1. Enter DWR Well Registration No. & Location.

DWR WELL REGISTRATION NO.	LOCATION Q	Q	Q	Sec	Twn	Rng
55-800940			NW	31	6N	5W

2. Enter type, make & model of measuring device used to measure flow. If measuring device is permanent, enter date installed or last overhauled.

TYPE OF MEASURING DEVICE	MAKE
meter	Trident
MODEL	**SIZE**
Neptune	2" (S/N 31505852)
UNITS MEASURED	**INSTALLATION OR OVERHAUL DATE**
US gallons	March 1989

3. Enter Power Co. Name, Account No., Meter No. and total energy consumption. Indicate units as KWH, therms or other measurement.

POWER CO. NAME	ACCOUNT NO.	POWER METER NO.

ENTER TOTAL ENERGY CONSUMPTION IN COLUMN 6 OF SCHEDULE A

ENERGY CONSUMPTION	UNITS

4. Does Energy Meter serve uses other than the well pump? ☐ YES ☐ NO
Enter "Y" or "N" in column 7 of Schedule A

5. Enter water reading as of January 1, in ⑤. If your meter reads in 10s, 100s, or 1000s of units, be sure to add the correct number of zeros.

6. Enter ending reading as of December 31, in ⑥. If the totalizer dial has rolled over during the year, enter the number 1 in front of the reading, if twice, a 2, etc.

7. Subtract reading in ⑤ from reading in ⑥ and enter the difference in ⑦.

WATER TOTALIZING METER READINGS		
⑤ INITIAL	⑥ ENDING	⑦ DIFFERENCE
22,220,600	27,819,700	5,599,100

meter removed from system on April 30, 1991

If meter was replaced during the year, indicate beginning and ending reading for each meter.

8. Convert the Total Amount Pumped to acre feet by using the appropriate conversion.

- If meter reads in gallons, divide ⑦ by 325,851 and enter the result below.
- If meter reads in cubic feet, divide ⑦ by 43,560 and enter the result below.
- If meter reads in acre-feet, no conversion is necessary.

ACRE FEET	17.183

9. If your meter malfunctioned during the year, enter the estimate of withdrawals in acre-feet made during the out-of-service period, as indicated on Meter Malfunction report.

BREAKDOWN ESTIMATE	7.817	estimated

@ 20 g.p.m., 12 hrs/day, 5 days/week, 35 weeks

10. Add ⑧ and ⑨ and enter result below and in column 4 of Schedule A for each well measured.

TOTAL IN ACRE-FEET	25.00

THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A

RIGHTHOLDER COPY - RETAIN

SCHEDULE A

REPORT OF GROUNDWATER WITHDRAWALS

AMA - PHOENIX

ARIZONA DEPT. OF WATER RESOURCES
DWR-AR-2-89

INSTRUCTIONS

Enter groundwater right number and owner name, if not already shown, in (1)
Enter DWR well registration number and location of each well, if not already shown, in (2)
Enter power company name, account number and meter number, if not already shown, in (3)
Enter total acre-feet of groundwater withdrawn for each well, as calculated on attached worksheets, in (4)
Enter grand total acre-feet withdrawn in (10) and in Part I of the Summary Page
Enter device type used to measure withdrawals, if not already shown, in (5) (see list below).
Enter energy consumed by well and units of measure from appropriate worksheet in (6)
If energy meter serves uses other than the well, indicate "Y" in (7) If energy meter does not serve other uses (meter is dedicated to the well) indicate "N" in (7)
If device types 2 through 6 are used, indicate the average discharge and divider or total hours from the appropriate worksheet in (8) and (9)

DEVICE TYPE

1. Pumpage measured by meter or other totalizer/recorder devices (use worksheet W-1)
2. Pipeflow with pumpage calculated using electrical energy records (use worksheet W-2)
3. Pipeflow with pumpage calculated using natural gas energy records (use worksheet W-3)
4. Open channel flow with pumpage calculated using electrical energy records (use worksheet W-4)
5. Open channel flow with pumpage calculated using natural gas energy records (use worksheet W-5)
6. Pumpage calculated using hour meters (use worksheet W-6)

(1) GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

(1) OWNER
AF BUDGE (MINING) LTD

NOTE: A COMPLETE WORKSHEET MUST BE ATTACHED FOR EACH WELL FROM WHICH WATER WAS WITHDRAWN

(2) DWR WELL REGISTRATION NUMBER	(2) LOCATION Q Q Q Sec Twn Rng	(3) POWER CO. NAME ACCOUNT NO.	METER NO.	(4) GROUNDWATER WITHDRAWN IN ACRE-FEET	DEVICE TYPE (5)	(6) ENERGY CONSUMPTION (Indicate Units)	(7) OTHER ENERGY USES (Y/N)	FOR DEVICE TYPES 2 thru 6 ONLY (8) AVERAGE DISCHARGE	(9) DIVIDER OR TOTAL HOURS
55-800940	NW 31 060N050W	diesel generated	power	25.00	1	n/a	N		
		(10) TOTAL ACRE-FEET WITHDRAWN ▶		25.00					

MEASURING DEVICE MALFUNCTION

Pursuant to A.C.R.R. R12-15-905, a measuring device that fails to perform for more than seventy two (72) hours must be reported to the Department of Water Resources within seven (7) calendar days after the discovery of the malfunction. Corrective action must be taken as soon as practicable, and estimates of withdrawals made during the period the device was out of service must be provided. A Measuring Device Malfunction Report is available on request.

ENTER TOTAL ACRE-FEET OF GROUNDWATER WITHDRAWN IN PART I ON SUMMARY PAGE

RIGHTHOLDER COPY - RETAIN

ANNUAL WATER USE REPORT
SCHEDULE G-5
GENERAL INDUSTRIAL USERS

CALENDAR YEAR 1991

RIGHT OR PERMIT NUMBER 59 - 516142.0000

Facility Name: Vulture Mine

Contact Person: Carole A. O'Brien

Address: c/o A.F. Budge (Mining) Limited

4300 N. Miller Rd., Suite 121, Scottsdale, AZ 85251

Phone: (602) 945-4630

In addition to reporting withdrawals from non-exempt wells, persons holding one or more Type 1 Grandfathered Right(s), Type 2 Grandfathered Rights(s) or Groundwater Withdrawal Permit(s) totaling over 10 acre-feet per year are required to supply the following information for calendar year 1991. This information is required under provisions of the First Management Plan.

PART 1 - DESCRIPTION OF WATER USES

Please describe the primary uses of water obtained under this water right or use permit.

fresh water used in the detoxification/reclamation of heap leach pads.

PART 2 - ESTIMATED AMOUNTS USED FOR VARIOUS PURPOSES

Please provide estimates of the amount of water used annually for the following purposes.

industrial processing*	25-35	AF
landscape watering		AF
non-domestic cooling		AF
non-domestic cleaning		AF
domestic		AF

*do not include water used for cooling and cleaning purposes

PART 3 - WASTEWATER PRODUCTION AND USE

wastewater generated		AF
wastewater reused		AF
wastewater disposed of		AF

1990 ANNUAL WATER WITHDRAWAL AND USE REPORT
SUMMARY PAGE

AMA PHOENIX

PART I GROUNDWATER WITHDRAWN

From Line 10, Schedule A attached

Complete this section only if you operate a non-exempt well. If not, go to Part III below.

37.895 ACRE-FEET X 2.00 Withdrawal Fee = $ 75.79

PART II WATER DELIVERED TO OTHER RIGHTS

From Line 9, Schedule D attached

0 ACRE-FEET

PART III WATER RECEIVED FROM OTHER RIGHTS

From Line 8, Schedule E, or Line 5 Schedule E-1 attached

0 ACRE-FEET

PART IV TOTAL WATER USED BY THIS RIGHT

Calculate as follows: Part I + Part III - Part II

37.895 ACRE-FEET

PART V LATE FEES

Complete if filing after March 31

1) Enter number of months late 1

Note: A portion of a month after March 31 is accounted for as a full month

2) Calculate Late Report Fee ($25.00 x number of months late) $ 25.00

3) Calculate Late Payment Fee (10% per month of the withdrawal fee calculated in Part I above) $ 7.58

TOTAL FEES DUE (add amounts in this column) $ 108.37

ARIZONA DEPARTMENT OF WATER RESOURCES
15 SOUTH 15th AVENUE
PHOENIX, ARIZONA 85007
602-542-1581

DWR-AR-1-90

GROUNDWATER RIGHT DESCRIPTION AND NUMBER

TYPE OF RIGHT: MINERAL EXTRACTION

RIGHT/PERMIT NO.: 59-516142.0000

GENERAL LOCATION:
06 05ON 05OW

Mail or hand deliver this report, together with the appropriate schedules, worksheets and fees to the Arizona Department of Water Resources. If mailed, the report must be postmarked no later than March 31, 1991. If hand delivered, the report must be received by the Department's Operation Division or local AMA office no later than 5:00 PM on March 31, 1991.

This report must be filed even if no water was used on this right.

REPORTS FILED AFTER MARCH 31, 1991 ARE SUBJECT TO LATE FEES AND PAYMENT OF PREVIOUSLY WAIVED MONETARY PENALTIES ASSOCIATED WITH PRIOR GROUNDWATER CODE VIOLATIONS. (ARS §45-632K)

I hereby certify, under penalty of perjury, that the information contained in this report is, to the best of my knowledge and belief, true, correct and complete.

X Carole A. O'Brien (AUTHORIZED SIGNATURE) | Mining Coordinator (TITLE) | April 12/91 (DATE)

Carole A. O'Brien (PRINTED NAME) | (602) 945-4630 (TELEPHONE NUMBER)

OWNER OF GROUNDWATER RIGHT

AF BUDGE (MINING) LTD
4301.N 75TH STREETSTE101

SCOTTSDALE AZ 85251

REPORTING PARTY 59-516142.0000

AF BUDGE (MINING) LTD
4301.N 75TH STREETSTE101

SCOTTSDALE AZ 85251

If any of the information preprinted on this report is incorrect, please make the necessary changes.

A(1)G5(1)
W1(1)

RIGHTHOLDER COPY

SCHEDULE A

REPORT OF GROUNDWATER WITHDRAWALS
AMA - PHOENIX

ARIZONA DEPT. OF
WATER RESOURCES
DWR-AR-2-89

INSTRUCTIONS

Enter groundwater right number and owner name, if not already shown, in (1)
Enter DWR well registration number and location of each well, if not already shown, in (2)
Enter power company name, account number and meter number, if not already shown, in (3)
Enter total acre-feet of groundwater withdrawn for each well, as calculated on attached worksheets, in (4)
Enter grand total acre-feet withdrawn in (10) and in Part I of the Summary Page
Enter device type used to measure withdrawals, if not already shown, in (5) (see list below).
Enter energy consumed by well and units of measure from appropriate worksheet in (6)
If energy meter serves uses other than the well, indicate "Y" in (7) If energy meter does not serve other uses (meter is dedicated to the well) indicate "N" in (7)
If device types 2 through 6 are used, indicate the average discharge and divider or total hours from the appropriate worksheet in (8) and (9)

DEVICE TYPE

1. Pumpage measured by meter or other totalizer/recorder devices (use worksheet W-1)
2. Pipeflow with pumpage calculated using electrical energy records (use worksheet W-2)
3. Pipeflow with pumpage calculated using natural gas energy records (use worksheet W-3)
4. Open channel flow with pumpage calculated using electrical energy records (use worksheet W-4)
5. Open channel flow with pumpage calculated using natural gas energy records (use worksheet W-5)
6. Pumpage calculated using hour meters (use worksheet W-6)

(1) GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

(1) OWNER
AF BUDGE (MINING) LTD

NOTE: A COMPLETE WORKSHEET MUST BE ATTACHED FOR EACH WELL FROM WHICH WATER WAS WITHDRAWN

(2) DWR WELL REGISTRATION NUMBER	(2) LOCATION Q Q Q Sec Twn Rng	(3) POWER CO. NAME ACCOUNT NO.	METER NO.	(4) GROUNDWATER WITHDRAWN IN ACRE-FEET	DEVICE TYPE (5)	(6) ENERGY CONSUMPTION (Indicate Units)	(7) OTHER ENERGY USES (Y/N)	FOR DEVICE TYPES 2 thru 6 ONLY (8) AVERAGE DISCHARGE	(9) DIVIDER OR TOTAL HOURS
55-800940	NW 31 060N050W	diesel generated	power	37.895	1	n/a	N		
		(10) TOTAL ACRE-FEET WITHDRAWN ▶		37.895					

ENTER TOTAL ACRE-FEET OF GROUNDWATER WITHDRAWN IN PART I ON SUMMARY PAGE

MEASURING DEVICE MALFUNCTION

Pursuant to A.C.R.R. R12-15-905, a measuring device that fails to perform for more than seventy two (72) hours must be reported to the Department of Water Resources within seven (7) calendar days after the discovery of the malfunction. Corrective action must be taken as soon as practicable, and estimates of withdrawals made during the period the device was out of service must be provided. A Measuring Device Malfunction Report is available on request.

RIGHTHOLDER COPY

ARIZONA DEPT. OF WATER RESOURCES

WORKSHEET W-1

PUMPAGE MEASURED BY METER OR OTHER TOTALIZER RECORDER DEVICES

DWR-AR-9-89

GROUNDWATER RIGHT/PERMIT NO. 59-516142.0000

READ INSTRUCTIONS CAREFULLY

1. Enter DWR Well Registration No. & Location.

DWR WELL REGISTRATION NO.	LOCATION Q	Q	Q	Sec	Twn	Rng
55-800940			NW	31	6N	5W

2. Enter type, make & model of measuring device used to measure flow. If measuring device is permanent, enter date installed or last overhauled.

TYPE OF MEASURING DEVICE	MAKE
meter	Trident
MODEL	SIZE
Neptune	2" (S/N 31505852)
UNITS MEASURED	INSTALLATION OR OVERHAUL DATE
US gallons	March 1989

3. Enter Power Co. Name, Account No., Meter No. and total energy consumption. Indicate units as KWH, therms or other measurement.

POWER CO. NAME	ACCOUNT NO.	POWER METER NO.
n/a		

ENTER TOTAL ENERGY CONSUMPTION IN COLUMN 6 OF SCHEDULE A

ENERGY CONSUMPTION	UNITS

4. Does Energy Meter serve uses other than the well pump? ☐ YES ☐ NO
Enter "Y" or "N" in column 7 of Schedule A

5. Enter water reading as of January 1, in (5). If your meter reads in 10s, 100s, or 1000s of units, be sure to add the correct number of zeros.

6. Enter ending reading as of December 31, in (6). If the totalizer dial has rolled over during the year, enter the number 1 in front of the reading, if twice, a 2, etc.

7. Subtract reading in (5) from reading in (6) and enter the difference in (7).

WATER TOTALIZING METER READINGS		
(5) INITIAL	(6) ENDING	(7) DIFFERENCE
9,872,400	22,220,600	12,348,200

If meter was replaced during the year, indicate beginning and ending reading for each meter.

8. Convert the Total Amount Pumped to acre feet by using the appropriate conversion.

- If meter reads in gallons, divide (7) by 325,851 and enter the result below.
- If meter reads in cubic feet, divide (7) by 43,560 and enter the result below.
- If meter reads in acre-feet, no conversion is necessary.

ACRE FEET	37.895

9. If your meter malfunctioned during the year, enter the estimate of withdrawals in acre-feet made during the out-of-service period, as indicated on Meter Malfunction report.

BREAKDOWN ESTIMATE	

10. Add (8) and (9) and enter result below and in column 4 of Schedule A for each well measured.

TOTAL IN ACRE-FEET	37.895

THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A

RIGHTHOLDER COPY

BUDGE

A.F. Budge (Mining) Limited

(602) 945-4630

4301 North 75th Street
Suite 105
Scottsdale, AZ 85251-3504

FAX (602) 949-1737

January 28, 1991

State of Arizona
Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, Arizona

4th Quarter Report - 1990
Permit: G-0090-07 Vulture Mine

On October 1, 1990 all solution to the heaps was discontinued and natural degradation of the cyanide within the heaps was allowed to occur.

The main water line from the well was dismantled.

The barren solution pond was treated with approximately 600 pounds of calcium hypochlorite to aid in the destruction of any residual cyanide.

During the latter part of December, 7 holes were drilled by Sergent, Hauskins & Beckwith Geotechnical Engineers for the purpose of determining the levels of weak and dissociable cyanide within the heaps. Upon receipt of the results of this drilling, a meeting will be arranged with members of the Department of Environmental Quality to determine the optimum post-closure procedures for the site.

Respectfully submitted,

Carole A. O'Brien

Carole A. O'Brien
for: Dale H. Allen
Production Manager

BUDGE

A.F. Budge (Mining) Limited

(602) 945-4630

4301 North 75th Street
Suite 105
Scottsdale, AZ 85251-3504

FAX (602) 949-1737

October 23, 1990

State of Arizona
Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, Arizona 85004

3rd Quarter Report - 1990
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

During the period July 1, 1990 to September 30, 1990, barren solution and fresh water were applied to the heaps. The fresh (well) water has been sprayed on sections of the heap only where solutions from those sections have been observed in the leak detection system, and in quantities as to not upset the water balance. Solution in the leak detection system has been observed intermittently, with flow rates varying from 15 to 50 ml per minute; the solution contains 0.3 pounds/ton free cyanide. On October 1st solution will be discontinued to the heaps and natural degragation allowed to occur. Heaps will be sampled during the first quarter of 1991.

Well totalizer reading on July 1,1990 was 22,442,100, on October 1, 1990, 22,220,600. Total water usage for the quarter was 4,828,500, or approximately 14.8 acre feet. This equates to approximately 36 g.p.m.

Respectfully submitted,

Dale H. Allen
Production Manager

BUDGE

A.F. Budge (Mining) Limited

4300 North 75th Street
Suite 305
Scottsdale, AZ 85251-3504

FAX 602 [illegible]

July 26, 1990

State of Arizona
Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Pheenix, AZ 85004

2nd Quarter Report - 1990
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

During the period April 1, 1990 through June 30, 1990, barren solution and fresh water were applied to the heaps. The fresh (well) water has been sprayed on sections of the heap only where solutions from those sections have been observed in the leak detection system, and in quantities as to not upset the water balance. Solution in the leak detection system has been observed intermittently, with flow rates varying from 15 to 50 ml per minute; the solution contains 0.3 pounds/ton free cyanide.

Well totalizer reading on April 1, 1990 was 15,865,500; on July 1, 1990, 22,442,100. Total water useage for the quarter was 6,576,600 gallons, or approximately 20.2 acre feet. This equates to approximately 50 g.p.m.

Respectfully submitted,

Dale H. Allen
Production Manager

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

April 25, 1990

Arizona Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Venue
Phoenix, Arizona 85004

1st Quarter Report - 1990
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Deaprtment of Environmental Quality is to be considered confidential.

During the period, January 1, 1990 through March 31, 1990, no additional tons have been added to the pad. Barren solution is being recycled through the heap in an attempt to enhance the rate of degradation of the cyanide. No cyanide has been added during the quarter to the cycle. The Merrill-Crowe Zinc Precipitation plant is operating at less than 50% of design capacity.

Well totalizer reading on January 1, 1990 was 9,872,400; reading on April 1, 1990 was 15,865,500. Total water useage for the quarter was 5,993,100 gallons, or approximately 18.4 Acre feet. This equates to approximately 46 g.p.m.

No solution has been observed in the leak detection system since February 19, 1990.

Respectfully submitted,

Dale H. Allen
Production Manager

DHA:ca

ARIZONA DEPARTMENT OF WATER RESOURCES

15 South 15th Avenue, Phoenix, Arizona 85007
Telephone (602) 542-1553
Fax (602 256-0506

January 7, 1992

FIFE SYMINGTON
Governor

ELIZABETH ANN RIEKE
Director

NOTICE

TO: All persons entitled to withdraw or receive groundwater pursuant to an irrigation grandfathered right and all persons distributing groundwater pursuant to an irrigation grandfathered right

When the Second Management Plan for the Phoenix Active Management Area was adopted in December of 1989, it contained an effluent adjustment provision in the Agricultural Conservation Program. That provision, which was contained in Subsection E of Section 4-102, provided as follows:

> E. Effluent Adjustment
>
> For purposes of calculating credits and debits to the operating flexibility account assigned to a farm pursuant to A.R.S. § 45-467, each acre-foot of effluent physically applied to the farm's irrigation acres shall be considered as 0.9 acre-foot of water used by the farm for irrigation purposes.

The purpose of the effluent adjustment provision was to provide an incentive for the use of effluent on a farm's irrigation acres. In 1991, the Legislature amended A.R.S. § 45-467 to exclude effluent from consideration in determining the amount of any debit to be registered to a farm's flexibility account. As a result of this amendment, a person using groundwater on a farm pursuant to an irrigation grandfathered right may use an unlimited amount of effluent on the farm without any debit being registered to the farm's flexibility account due to the use of effluent.

The amendment of A.R.S. § 45-467 has created an incentive for the use of effluent on a farm's irrigation acres which in some cases is greater than the incentive created by the effluent adjustment provision in the Second Management Plan. When the Legislature amended A.R.S. § 45-467, it enacted a law which authorizes the Director to repeal the effluent adjustment provision in the Second Management Plan without complying with the requirements prescribed in A.R.S. § 45-572. Laws 1991, Ch. 112, Sec. 7. The Director has concluded from these legislative enactments that the Legislature intended that the effluent incentive created by the amendment of A.R.S. § 45-467 should take the place of the

effluent adjustment provision contained in the Second Management Plan. For that reason, the Director has determined that the effluent adjustment provision contained in Subsection E of Section 4-102 of the Second Management Plan should be repealed pursuant to the authority granted in Laws 1991, Ch. 112, Sec. 7.

As a result, beginning on the date of this notice, each acre-foot of effluent applied to a farm's irrigation acres will be considered as one acre-foot of water used by the farm for irrigation purposes when calculating the farm's flexibility account.

If you have any questions regarding this notice, please contact your active management area office.

Elizabeth Ann Rieke

Elizabeth Ann Rieke
Director

ARIZONA DEPARTMENT OF WATER RESOURCES

Phoenix Active Management Area
15 South 15th Avenue, Phoenix, Arizona 85007
Telephone (602) 542-1512
Fax (602) 256-0506

January 7, 1992

Dear Industrial Water User:

Enclosed are your Annual Water Withdrawal and Use Report forms for calendar year 1991. The Department has preprinted certain information from our records onto these forms. If any of the preprinted information is incorrect, please make the necessary changes. With the exception of the Schedule G-2, the annual report forms are pressure-sensitive three part forms, so apply extra pressure when completing the forms to ensure that the information is transferred to the underlying copies. Upon completion of the forms, retain the white "rightholder copy" for your records. If you have water rights other than your service area right, a separate annual report must be filed for each of those rights along with separate checks to cover fees associated with each report.

The Groundwater Code requires that annual reports be filed by each person who owns a right to withdraw, receive or use groundwater in an Active Management Area even if no groundwater was used. In addition to the annual report schedules, you must also file a worksheet for each well associated with your service area right. Reports must be received by the Department or postmarked no later than March 31, 1992. Penalties for filing after the deadline are calculated under "Late Fees" on the Summary Page.

Most of the requirements in the Second Management Plan (SMP) will become effective starting January 1, 1992. If you are not sure what your SMP conservation requirement is, please contact Terri Sue Carroll or Marjie Risk in the Phoenix AMA at 542-1512.

If you have any questions regarding the enclosed annual report forms, please do not hesitate to contact the AMA at 542-1512.

Sincerely,

Herb Dishlip

Herb Dishlip
Deputy Director
Water Management

January 7, 1991

ARIZONA
DEPARTMENT
OF WATER
RESOURCES

Rose Mofford, Governor
N. W. Plummer
Director

Phoenix Active Management Area
15 South 15th Avenue
Phoenix, Arizona 85007
(602) 542-1512

Dear Groundwater Rights Owner:

Enclosed are your annual water withdrawal and use forms for calendar year 1990. The Department has preprinted certain information from our records. If any of the information is incorrect, we ask that you make the necessary changes. Please note that the annual report forms are pressure-sensitive three part forms. It is important to use extra pressure when completing the forms to insure that the information is transferred to the underlying copies. When you have completed each form, make sure to **retain the blue "rightholders copy" for your records.** Please note that a separate annual report must be filed for each right that you own. Separate checks should be enclosed to cover the fees associated with each right.

The Groundwater Code requires that an annual report must be filed by each person who owns a right to withdraw, receive or use groundwater in an Active Management Area even if no groundwater was used. Persons who did not withdraw or receive water during 1990 are **required** to return the forms with zeros in the appropriate blanks.

Reports must be received by the Department or postmarked no later than April 1, 1991. The penalty for filing late is $25.00 per month or part of a month that the report is late up to $150.00. In addition, if you withdrew groundwater, and did not pay the fee on time or did not pay the proper fee, the penalty is 10% of the unpaid fee per month or part of a month that the fees are delinquent, up to a maximum of 60% of the unpaid balance.

Irrigation districts may choose to file on behalf of their water users. You should be aware that very few irrigation districts have chosen to file 1990 reports for their customers. You should ask your District if they plan to file for you.

Worksheets

If you withdrew water from a non-exempt well in 1990, worksheets showing water measurement calculations must be submitted. An exception is made for persons holding a Type 2 Non-Irrigation Grandfathered Right or a groundwater withdrawal permit in the

amount of 10 acre feet or less. Persons holding such rights or permits may estimate the amount pumped.

Ownership Transfers or Conveyances

If your water right has been sold, both the buyer and seller are responsible for notifying the Department of the transfer. **The owner of the water right as of December 31, 1990 is responsible for filing an annual report covering the entire calendar year.** Please contact your AMA office for conveyance forms and instructions.

We have tried to provide you with the proper forms according to information in our files. The law does specify, however, that failure to receive the proper forms does not relieve a person of the responsibility of keeping the required records or filing the required reports.

If you need help or have questions, contact your AMA office listed at the bottom of the page.

Sincerely,

Herb Dishlip

Herb Dishlip
Deputy Director
Water Management

HD/JH/jlc

PHOENIX AMA, 15 South 15th Avenue, Phoenix, Arizona 85007;
PHONE: 542-1512.

TUCSON AMA, 310 South Meyer, Tucson, Arizona 85701;
PHONE: 628-5858.

PINAL AMA, 901 East Cottonwood, Suite B, Casa Grande, Arizona;
PHONE: 836-4857.

PRESCOTT AMA, 1316 Iron Springs Road, Prescott, Arizona;
PHONE: 778-7202

FL-ANNRPT

1989 ANNUAL WATER WITHDRAWAL AND USE REPORT

SUMMARY PAGE

AMA PHOENIX

PART I GROUNDWATER WITHDRAWN

From Line 10, Schedule A attached

Complete this section only if you operate a non-exempt well. If not, go to Part III below.

35.30 ACRE-FEET X 1.00 Withdrawal Fee = $ 35.30

PART II WATER DELIVERED TO OTHER RIGHTS

From Line 9, Schedule D attached

0 ACRE-FEET

PART III WATER RECEIVED FROM OTHER RIGHTS

From Line 8, Schedule E attached

0 ACRE-FEET

PART IV TOTAL WATER USED BY THIS RIGHT

Calculate as follows: Part I + Part III - Part II

35.30 ACRE-FEET

PART V LATE FEES

Complete if filing after March 31

1) Enter number of months late ☐

Note: A portion of a month after March 31 is accounted for as a full month

2) Calculate Late Report Fee ($25.00 x number of months late) $

3) Calculate Late Payment Fee (10% per month of the withdrawal fee calculated in Part I above) $

TOTAL FEES DUE (add amounts in this column) $ 35.30

ARIZONA DEPARTMENT OF WATER RESOURCES
15 SOUTH 15th AVENUE
PHOENIX, ARIZONA 85007
602-542-1581

DWR-AR-1-89

GROUNDWATER RIGHT DESCRIPTION AND NUMBER

TYPE OF RIGHT: MINERAL EXTRACTION

RIGHT/PERMIT NO.: 59-516142.0000

GENERAL LOCATION:
06 05ON 05OW

Mail or hand deliver this report, together with the appropriate schedules, worksheets and fees to the Arizona Department of Water Resources. If mailed, the report must be postmarked no later than March 31, 1990. If hand delivered, the report must be received by the Department's Operation Division or local AMA office no later than 5:00 PM on March 31, 1990.

This report must be filed even if no water was used on this right.

REPORTS FILED AFTER MARCH 31, 1990 ARE SUBJECT TO LATE FEES AND PAYMENT OF PREVIOUSLY WAIVED MONETARY PENALTIES ASSOCIATED WITH PRIOR GROUNDWATER CODE VIOLATIONS. (ARS §45-632K)

I hereby certify, under penalty of perjury, that the information contained in this report is, to the best of my knowledge and belief, true, correct and complete.

X Carole A. O'Brien — AUTHORIZED SIGNATURE

Mining Coordinator — TITLE

March 29/90 — DATE

Carole A. O'Brien — PRINTED NAME

(602) 945-4630 — TELEPHONE NUMBER

OWNER OF GROUNDWATER RIGHT

AF BUDGE (MINING) LTD
4301.N 75TH STREETSTE101

SCOTTSDALE AZ 85251

REPORTING PARTY 59-516142.0000

AF BUDGE (MINING) LTD
4301.N 75TH STREETSTE101

SCOTTSDALE AZ 85251

If any of the information preprinted on this report is incorrect, please make the necessary changes.

A(1)G5(1)
WI(1)

RIGHTHOLDER COPY

SCHEDULE A

REPORT OF GROUNDWATER WITHDRAWALS

AMA - PHOENIX

ARIZONA DEPT. OF WATER RESOURCES
DWR-AR-2-89

INSTRUCTIONS

Enter groundwater right number and owner name, if not already shown, in (1)
Enter DWR well registration number and location of each well, if not already shown, in (2)
Enter power company name, account number and meter number, if not already shown, in (3)
Enter total acre-feet of groundwater withdrawn for each well, as calculated on attached worksheets, in (4)
Enter grand total acre-feet withdrawn in (10) and in Part I of the Summary Page
Enter device type used to measure withdrawals, if not already shown, in (5) (see list below).
Enter energy consumed by well and units of measure from appropriate worksheet in (6)
If energy meter serves uses other than the well, indicate "Y" in (7) If energy meter does not serve other uses (meter is dedicated to the well) indicate "N" in (7)
If device types 2 through 6 are used, indicate the average discharge and divider or total hours from the appropriate worksheet in (8) and (9)

DEVICE TYPE

1. Pumpage measured by meter or other totalizer/recorder devices (use worksheet W-1)
2. Pipeflow with pumpage calculated using electrical energy records (use worksheet W-2)
3. Pipeflow with pumpage calculated using natural gas energy records (use worksheet W-3)
4. Open channel flow with pumpage calculated using electrical energy records (use worksheet W-4)
5. Open channel flow with pumpage calculated using natural gas energy records (use worksheet W-5)
6. Pumpage calculated using hour meters (use worksheet W-6)

(1) GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

(1) OWNER
AF BUDGE (MINING) LTD

NOTE: A COMPLETE WORKSHEET MUST BE ATTACHED FOR EACH WELL FROM WHICH WATER WAS WITHDRAWN

(2) DWR WELL REGISTRATION NUMBER	(2) LOCATION Q Q Q Sec Twn Rng	(3) POWER CO. NAME / ACCOUNT NO.	METER NO.	(4) GROUNDWATER WITHDRAWN IN ACRE-FEET	(5) DEVICE TYPE	(6) ENERGY CONSUMPTION (Indicate Units)	(7) OTHER ENERGY USES (Y/N)	FOR DEVICE TYPES 2 thru 6 ONLY (8) AVERAGE DISCHARGE	FOR DEVICE TYPES 2 thru 6 ONLY (9) DIVIDER OR TOTAL HOURS
55-800940	NW 31 060N050W	diesel generated power		35.30	1	n/a	N		
		(10) TOTAL ACRE-FEET WITHDRAWN ▶		35.30					

MEASURING DEVICE MALFUNCTION

Pursuant to A.C.R.R. R12-15-905, a measuring device that fails to perform for more than seventy two (72) hours must be reported to the Department of Water Resources within seven (7) calendar days after the discovery of the malfunction. Corrective action must be taken as soon as practicable, and estimates of withdrawals made during the period the device was out of service must be provided. A Measuring Device Malfunction Report is available on request.

ENTER TOTAL ACRE-FEET OF GROUNDWATER WITHDRAWN IN PART I ON SUMMARY PAGE

RIGHTHOLDER COPY

ARIZONA DEPT. OF WATER RESOURCES

WORKSHEET W-1

PUMPAGE MEASURED BY METER OR OTHER TOTALIZER RECORDER DEVICES

DWR-AR-9-89

GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

READ INSTRUCTIONS CAREFULLY

1. Enter DWR Well Registration No. & Location.

DWR WELL REGISTRATION NO.	LOCATION					
	Q	Q	Q	Sec	Twn	Rng
55-800940			NW	31	6N	5W

2. Enter type, make & model of measuring device used to measure flow. If measuring device is permanent, enter date installed or last overhauled.

TYPE OF MEASURING DEVICE	MAKE
meter	Trident
MODEL	**SIZE**
Neptune	2" (S/N 31505852)
UNITS MEASURED	**INSTALLATION OR OVERHAUL DATE**
US gallons	March 1989

3. Enter Power Co. Name, Account No., Meter No. and total energy consumption. Indicate units as KWH, therms or other measurement.

POWER CO. NAME	ACCOUNT NO.	POWER METER NO.
n/a		

ENTER TOTAL ENERGY CONSUMPTION IN COLUMN 6 OF SCHEDULE A

ENERGY CONSUMPTION	UNITS

4. Does Energy Meter serve uses other than the well pump? ☐ YES ☑ NO
   Enter "Y" or "N" in column 7 of Schedule A

5. Enter water reading as of January 1, in (5). If your meter reads in 10s, 100s, or 1000s of units, be sure to add the correct number of zeros.

6. Enter ending reading as of December 31, in (6). If the totalizer dial has rolled over during the year, enter the number 1 in front of the reading, if twice, a 2, etc.

7. Subtract reading in (5) from reading in (6) and enter the difference in (7).

WATER TOTALIZING METER READINGS		
(5) INITIAL	(6) ENDING	(7) DIFFERENCE
n/a	9,872,400	9,872,400

If meter was replaced during the year, indicate beginning and ending reading for each meter.

8. Convert the Total Amount Pumped to acre feet by using the appropriate conversion.

   - If meter reads in gallons, divide (7) by 325,851 and enter the result below.
   - If meter reads in cubic feet, divide (7) by 43,560 and enter the result below.
   - If meter reads in acre-feet, no conversion is necessary.

ACRE FEET	30.30

9. If your meter malfunctioned during the year, enter the estimate of withdrawals in acre-feet made during the out-of-service period, as indicated on Meter Malfunction report.

BREAKDOWN ESTIMATE	5.00

10. Add (8) and (9) and enter result below and in column 4 of Schedule A for each well measured.

TOTAL IN ACRE-FEET	35.30

THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A

RIGHTHOLDER COPY

1 acre ft = 325,850 gallons

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

January 25, 1990

Arizona Department of
Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, Arizona 85004

Fourth Quarter Report
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

During the fourth quarter, no additional tons were added to the heaps.

The Merrill-Crowe Zinc Precipitation Plant operated at 100% of design capacity.

Enclosed are daily report sheets detailing the results of solution sampling for the fourth quarter.

Well totalizer reading on October 1, 1989 was 7,113,900; on January 1, 1990, the reading was 9,872,400. Total water usage for the fourth quarter was 2,758,500 gallons, or 8.5 acre feet. This equates to approximately 20.8 g.p.m.

The Department of Environmental Quality contines to evaluate the leaks encountered on the pad and steps are being taken to mitigate the situation.

Respectfully submitted,

Dale H. Allen
Production Manager for
A.F. Budge (Mining) Limited

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

October 24, 1989

Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, AZ 85004

Third Quarter Report
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

From July 1, 1989 through August 11, 1989, an additional 18,000 tons of agglomerated material were stacked on the leach pad, bringing the total of tons stacked to approximately 195,000 tons. The Merrill-Crowe Zinc Precipitation plant is operating at 100% of design capacity.

Enclosed are daily report sheets detailing the results of solution sampling for the third quarter.

Well totalizer reading on July 1, 1989 was 4,471,100; on October 1, 1989, the reading was 7,113,900. Total water useage for the third quarter was 2,642,800 gallons, or 8.11 acre feet. This equates to approximately 20 g.p.m.

Solution observed in the leak detection unit has been reported and steps have been taken to mitigate the situation as directed by the Department of Environmental Quality.

Respectfully submitted,

Dale H. Allen
Production Manager
for A.F. Budge (Mining) Limited

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

July 25, 1989

Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, AZ 85004

Second Quarter Report
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

From April 1, 1989 through June 30, 1989, approximately 57,000 tons of agglomerated material were added to our leach pad. The Merrill-Crowe Zinc Precipitation plant is operating at 100% of design capacity.

All available material will have been stacked on the leach pads by third quarter.

The barren pond is maintained at 1 pound of NaCN per ton of solution; pH, above 11.0.

Enclosed are daily report sheets detailing the results of solution sampling.

The average amount of freshwater added to the leach system during the second quarter was 30 g.p.m.

No solution was observed in the leak detection system.

Respectfully submitted,

Dale H. Allen
Production Manager
for A.F. Budge (Mining) Limited

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

April 14, 1989

Arizona Department of Environmental Quality
Office of Water Quality
Compliance Section
2005 North Central Avenue
Phoenix, Arizona 85004

First Quarter Report
Permit: G-0090-07 Vulture Mine

All information contained in this report to the Department of Environmental Quality is to be considered confidential.

From August, 1988 through the end of March 31, 1989, approximately 120,000 tons of agglomerated material had been stacked on the leach pad. This represents about 50% of our anticipated tonnage on the heap. We have started to stack the material on a second lift. The Merrill-Crowe Zinc Precipitation plant is operating at 100% of design capacity.

The barren pond is maintained at 1 pound of NaCN per ton of solution; pH, above 11.0.

Enclosed are copies of our daily report sheets detailing the results of solution sampling.

The average amount of freshwater added to the system during the 1st quarter of 1989 was 15 gpm.

No solution was observed in the leak detection system.

Your very truly,

Dale H. Allen
Production Manager
for A.F. Budge (Mining) Limited

1988 ANNUAL WATER WITHDRAWAL AND USE REPORT

SUMMARY PAGE

AMA PHOENIX

PART I GROUNDWATER WITHDRAWN

From Line 10, Schedule A attached

Complete this section only if you operate a non-exempt well. If not, go to Part III below.

37.73 ACRE-FEET X 1.00 Withdrawal Fee = $ 37.73

PART II GROUNDWATER DELIVERED TO OTHER RIGHTS

From Line 9, Schedule D attached

0 ACRE-FEET

PART III WATER RECEIVED FROM OTHER RIGHTS

From Line 8, Schedule E attached

0 ACRE-FEET

PART IV TOTAL WATER USED BY THIS RIGHT

Calculate as follows: Part I + Part III - Part II

37.73 ACRE-FEET

PART V LATE FEES

Complete if filing after March 31

1) Enter number of months late [1]

Note: A portion of a month after March 31 is accounted for as a full month

2) Calculate Late Report Fee ($25.00 x number of months late) $ 25.00

3) Calculate Late Payment Fee (10% per month of the withdrawal fee calculated in Part I above) $ 3.77

TOTAL FEES DUE (add amounts in this column) $ 66.50

ARIZONA DEPARTMENT OF WATER RESOURCES
15 SOUTH 15th AVENUE
PHOENIX, ARIZONA 85007
602-542-1581

DWR-AR-1-88

GROUNDWATER RIGHT DESCRIPTION AND NUMBER

TYPE OF RIGHT: MINERAL EXTRACTION

RIGHT/PERMIT NO.: 59-516142.0000

GENERAL LOCATION:
06 05ON 05OW

Mail or hand deliver this report, together with the appropriate schedules, worksheets and fees to the Arizona Department of Water Resources. If mailed, the report must be postmarked no later than March 31, 1989. If hand delivered, the report must be received by the Department's Operation Division or local AMA office no later than 5:00 PM on March 31, 1989.

This report must be filed even if no water was used on this right.

REPORTS FILED AFTER MARCH 31, 1989 ARE SUBJECT TO LATE FEES AND PAYMENT OF PREVIOUSLY WAIVED MONETARY PENALTIES ASSOCIATED WITH PRIOR GROUNDWATER CODE VIOLATIONS. (ARS §45-632K)

I hereby certify, under penalty of perjury, that the information contained in this report is, to the best of my knowledge and belief, true, correct and complete.

X Carole A. O'Brien — Coordinator — 4/20/89
AUTHORIZED SIGNATURE — TITLE — DATE

Carole A. O'Brien — (602) 945-4630
PRINTED NAME — TELEPHONE NUMBER

OWNER OF GROUNDWATER RIGHT

AF BUDGE (MINING) LTD
7340 E SHOEMAN LN
xxxxxxxxxxxxxxxxx 4301 N. 75th Street
xxxxxxxxxx Suite 101
SCOTTSDALE AZ 85251

REPORTING PARTY 59-516142.0000

AF BUDGE (MINING) LTD
7340 E SHOEMAN LN
xxxxxxxxxxxxxxxxx 4301 N. 75th Street
xxxxxxxxxx Suite 101
SCOTTSDALE AZ 85251

If any of the information preprinted on this report is incorrect, please make the necessary changes.

A(1)G5(1)

RIGHTHOLDER COPY

SCHEDULE A

REPORT OF GROUNDWATER WITHDRAWALS

AMA - PHOENIX

ARIZONA DEPT. OF WATER RESOURCES
DWR-AR2-88

INSTRUCTIONS

Enter groundwater right number and owner name, if not already shown, in (1)
Enter DWR well registration number and location of each well, if not already shown, in (2)
Enter power company name, account number and meter number, if not already shown, in (3)
Enter total acre-feet of groundwater withdrawn for each well, as calculated on attached worksheets, in (4)
Enter grand total acre-feet withdrawn in (10) and in Part I of the Summary Page
Enter device type used to measure withdrawals, if not already shown, in (5) (see list below).
Enter energy consumed by well and units of measure from appropriate worksheet in (6)
If energy meter serves uses other than the well, indicate "Y" in (7) If energy meter does not serve other uses (meter is dedicated to the well) indicate "N" in (7)
If device types 2 through 6 are used, indicate the average discharge and divider or total hours from the appropriate worksheet in (8) and (9)

DEVICE TYPE

1. Pumpage measured by meter or other totalizer/recorder devices (use worksheet W-1)
2. Pipeflow with pumpage calculated using electrical energy records (use worksheet W-2)
3. Pipeflow with pumpage calculated using natural gas energy records (use worksheet W-3)
4. Open channel flow with pumpage calculated using electrical energy records (use worksheet W-4)
5. Open channel flow with pumpage calculated using natural gas energy records (use worksheet W-5)
6. Pumpage calculated using hour meters (use worksheet W-6)

(1) GROUNDWATER RIGHT/PERMIT NO.
59-516142.0000

(1) OWNER
AF BUDGE (MINING) LTD

NOTE: A COMPLETE WORKSHEET MUST BE ATTACHED FOR EACH WELL FROM WHICH WATER WAS WITHDRAWN

(2) DWR WELL REGISTRATION NUMBER	(2) LOCATION Q Q Q Sec Twn Rng	(3) POWER CO. NAME ACCOUNT NO.	(3) METER NO.	(4) GROUNDWATER WITHDRAWN IN ACRE-FEET	DEVICE (5) TYPE	(6) ENERGY CONSUMPTION (Indicate Units)	(7) OTHER ENERGY USES (Y/N)	FOR DEVICE TYPES 2 thru 6 ONLY (8) AVERAGE DISCHARGE	FOR DEVICE TYPES 2 thru 6 ONLY (9) DIVIDER OR TOTAL HOURS
55-800940	NW 31 060N050W			37.73			N		
		(10) TOTAL ACRE-FEET WITHDRAWN		37.73					

MEASURING DEVICE MALFUNCTION

Pursuant to A.C.R.R. R12-15-905, a measuring device that fails to perform for more than seventy two (72) hours must be reported to the Department of Water Resources within seven (7) calendar days after the discovery of the malfunction. Corrective action must be taken as soon as practicable, and estimates of withdrawals made during the period the device was out of service must be provided. A Measuring Device Malfunction Report is available on request.

ENTER TOTAL ACRE-FEET OF GROUNDWATER WITHDRAWN IN PART I ON SUMMARY PAGE

RIGHTHOLDER COPY

ARIZONA DEPT. OF WATER RESOURCES

WORKSHEET W-1

PUMPAGE MEASURED BY METER OR OTHER TOTALIZER RECORDER DEVICES

DWR-AR-9-88

GROUNDWATER RIGHT/PERMIT NO.

READ INSTRUCTIONS CAREFULLY

1. Enter DWR Well Registration No. & Location.

DWR WELL REGISTRATION NO.	LOCATION					
	Q	Q	Q	Sec	Twn	Rng

2. Enter type, make & model of measuring device used to measure flow. If measuring device is permanent, enter date installed or last overhauled.

TYPE OF MEASURING DEVICE	MAKE
MODEL	SIZE
UNITS MEASURED	INSTALLATION OR OVERHAUL DATE

3. Enter Power Co. Name, Account No., Meter No. and total energy consumption. Indicate units as KWH, therms or other measurement.

POWER CO. NAME	ACCOUNT NO.	POWER METER NO.

ENTER TOTAL ENERGY CONSUMPTION IN COLUMN 6 OF SCHEDULE A	ENERGY CONSUMPTION	UNITS

4. Does Energy Meter serve uses other than the well pump? ☐ YES ☐ NO
   Enter "Y" or "N" in column 7 of Schedule A

5. Enter initial totalizer reading as of January 1, in ⑤. If your meter reads in 10s, 100s, or 1000s of units, be sure to add the correct number of zeros.

6. Enter ending reading as of December 31, in ⑥. If the totalizer dial has rolled over during the year, enter the number 1 in front of the reading, if twice, a 2, etc.

7. Subtract reading in ⑤ from reading in ⑥ and enter the difference in ⑦.

TOTALIZING METER READINGS		
⑤ INITIAL	⑥ ENDING	⑦ DIFFERENCE

If meter was replaced during the year, indicate beginning and ending reading for each meter.

8. Convert the Total Amount Pumped to acre feet by using the appropriate conversion.

   - If meter reads in gallons, divide ⑦ by 325,851 and enter the result below.
   - If meter reads in cubic feet, divide ⑦ by 43,560 and enter the result below.
   - If meter reads in acre-feet, no conversion is necessary.

ACRE FEET	

9. If your meter malfunctioned during the year, enter the estimate of withdrawals in acre-feet made during the out-of-service period. As indicated on Meter Malfunction report.

BREAKDOWN ESTIMATE	

10. Add ⑧ and ⑨ and enter result below and in column 4 of Schedule A for each well measured.

TOTAL IN ACRE-FEET	

THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A

RIGHTHOLDER COPY

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

April 20, 1989

Operations Division
Arizona Department of Water Resources
15 South 15th Avenue
Phoenix, Arizona 85007

Re: 1988 Annual Water Withdrawal and Use Report
Permit Number 59-516142

The following calculations have been used in determining the total amount of water withdrawal for the referenced permit:

Construction Phase: 12-week period beginning April 26, 1988

12 weeks x 7 days/week x 24 hrs/day x 60 min/hr x 60 gpm

= 7,257,600 gallons = 22.27 Acre feet

3rd Quarter Operations: 11 weeks

11 weeks x 5 days/week x 24 hrs/day x 60 min/hr x 40 gpm

= 3,168,000 gallons = 9.72 Acre feet

4th Quarter Operations: 13 weeks

13 weeks x 5 days/week x 24 hrs/day x 60 min/hr x 20 gpm

= 1,872,000 gallons = 5.74 Acre feet

Copies of cover letters to the Department of Environmental Quality substantiating these flow rates are attached.

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

April 20, 1989

Operations Division
Arizona Department of Water Resources
15 South 15th Avenue
Phoenix, Arizona 85007

Re: 1988 Annual Water Withdrawal and Use Report
Permit Number 59-516142

The following calculations have been used in determining the total amount of water withdrawal for the referenced permit:

Construction Phase: 12-week period beginning April 26, 1988

12 weeks x 7 days/week x 24 hrs/day x 60 min/hr x 60 gpm

= 7,257,600 gallons = 22.27 Acre feet

3rd Quarter Operations: 11 weeks

11 weeks x 5 days/week x 24 hrs/day x 60 min/hr x 40 gpm

= 3,168,000 gallons = 9.72 Acre feet

4th Quarter Operations: 13 weeks

13 weeks x 5 days/week x 24 hrs/day x 60 min/hr x 20 gpm

= 1,872,000 gallons = 5.74 Acre feet

Copies of cover letters to the Department of Environmental Quality substantiating these flow rates are attached.

BUDGE

A.F. Budge (Mining) Limited

4301 North 75th Street
Suite 101
Scottsdale, AZ 85251-3504

(602) 945-4630
FAX (602) 949-1737

April 20, 1989

Operations Division
Arizona Department of Water Resources
15 South 15th Avenue
Phoenix, Arizona 85007

Re: 1988 Annual Water Withdrawal and Use Report
Permit Number 59-516142

The following calculations have been used in determining the total amount of water withdrawal for the referenced permit:

Construction Phase: 12-week period beginning April 26, 1988

12 weeks x 7 days/week x 24 hrs/day x 60 min/hr x 60 gpm

= 7,257,600 gallons = 22.27 Acre feet

3rd Quarter Operations: 11 weeks

11 weeks x 5 days/week x 24 hrs/day x 60 min/hr x 40 gpm

= 3,168,000 gallons = 9.72 Acre feet

4th Quarter Operations: 13 weeks

13 weeks x 5 days/week x 24 hrs/day x 60 min/hr x 20 gpm

= 1,872,000 gallons = 5.74 Acre feet

Copies of cover letters to the Department of Environmental Quality substantiating these flow rates are attached.

PRESCOTT, ARIZONA 86301 Yavapai College

February 4, 1985

Don White
319 S. Mt. Vernon Ave.
Prescott, Arizona 86301

Dear Don,

I am writing to thank you for our excellent tour of the Vulture Mine. Your presentation contained a mixture of history and geology at the right level for the group. Even though the weather wasn't what we expected, I appreciate the effort you went to in arranging our access to the Vulture Mine.

Sincerely,

John

John Boyd

Feb. 11, 1985

Ben,

The Yavapai College group very much appreciated their chance to see the Vulture. Our final stop was inside Pit 1 to smash rocks for gold and several flecks were found in quartz veins; enough to finish the tour on a good note.

Thanks for your clearance to get in there.

Don White

OFFICE OF STATE MINE INSPECTOR
1616 West Adams, Suite 411
Phoenix, Arizona 85007-2627
(602) 255-5971

OFFICIAL SEAL
STATE OF ARIZONA
MINE INSPECTOR
JM 2-13-90

HEALTH AND SAFETY INSPECTION REPORT

COMPANY NAME: A. F. BUDGE MINING LIMITED

MINE/PLANT NAME: Vulture Mine

RECEIVED FEB 16 1990

MAILING ADDRESS: 4301 N. 75th St.
Suite 101

CITY: Scottsdale, AZ 85251

MINE/PLANT LOCATION: RANGE: _____, **TOWNSHIP:** _____ **SECTION** _____

12 miles southwest of Wickenburg on the Vulture Mine Road.

TELEPHONE NUMBER: 954-4630 **IDENTIFICATION NUMBER:** 081843

STATUS: X **PERMANENT** _____ **INTERMITTENT** _____ **TEMPORARY/PORTABLE**

THIS REPORT IS BASED ON AN INSPECTION MADE PURSUANT TO ARIZONA REVISED STATUTES SECTION 27-128 & SECTION 27-124

DATE OF INSPECTION: February 7, 1990

TYPE OF OPERATION: Cyanide Leach

PRINCIPAL PRODUCT: Gold

COUNTY: Maricopa

COMPANY OFFICIALS:
Carol A. O'Brien, Operator
Dale Allen, Supt.
Eric Allen, C/N Plant Operator

INSPECTION PARTY:
Eric Allen, Operator

NUMBER OF EMPLOYEES: 6

JAMES MATT, P. E.
CHIEF DEPUTY MINE INSPECTOR

CC: A. F. BUDGE MINING LIMITED
ff

A. F. BUDGE MINING LIMITED
Vulture Mine
February 7, 1990

ABATEMENT: PRIOR INSPECTION OF DECEMBER 5, 1989.

Violations #1,2,3,4,6,7,8,10, 11, 12, 13,14,15, and 16 have been abated.

EXTENSION: PRIOR INSPECTION OF DECEMBER 5, 1989.

5. R11-1-2218 Get the cyanide sensor checked to see if it is operating, this has been extended to 2/28/90.

9. R11-1-138 The barrier cable surrounding the 2 ponds has sagged to the ground in several places and is uniformly low. Brace the corner posts and tighten the cable so that it is 30" off the ground, this has been extended to 2/20/90.

17. R11-1-151 Quarterly Reports. Provide quarterly labor reports for the second and third quarters of 1989. We will accept copies of the MSHA quarterly labor reports, this has been extended to 2/20/90.

JAMES MATT, P. E.
CHIEF DEPUTY MINE INSPECTOR

THE VULTURE MINING DISTRICT
AN EXPLORATION POTENTIAL
PRELIMINARY REPORT

FOR

RABBI - ABRAHAM NOVITSKY
KING SOLOMON'S MINES
C/O UNITED STATES PERLITE LTD.
166 MONTAGUE STREET
BROOKLYN, NEW YORK 11201

BY

H. MASON COGGIN, P.E. & L.S.

4550 NORTH 12TH STREET
PHOENIX, ARIZONA 85014

DECEMBER 5, 1979

INTRODUCTION

The Vulture Mine, one of Arizona's oldest and most notorious gold mines, presents an exploration potential under current gold prices of $400/ounce.

The mine produced an estimated 20[(1)] to 400[(2)] million dollars from 1864 to 1942 when it was closed by the general gold mine closing order at the start of World War II.

A complex geology, in which post mineral faulting and post mineral volcanics may have covered and/or displaced strike and dip extensions of the Vulture vein. This as well as other veins, in the immediate area, may provide viable exploration targets in the King Solomon's Mines Group of 5600 acres.

HISTORY

The Vulture deposit was discovered in the early 1860's[(3)] by a group of California miners prospecting the area at a time when the Arizona territory was being explored.

Lack of water and nearly every other commodity necessary to support and protect a mining community prevented development in a logical and technically appropriate manner. The main ore shoot was consequently depleted in 1872. It was not until new management, funding, and applied technology after 1900 that new ore shoots were found, the mine re-opened and worked almost continuously until 1942 by mining new reserves and reworking old tailings and waste dumps.

LOCATION

The Vulture Mine is located in Section 36, Township 6 North, Range 6 West, Gila and Salt River Base and Meridian, about 14 miles Southwest of Wickenburg, Arizona.

GEOLOGY

Regional geology is a series of pre-Cambrian schists with dikes and irregular masses of granite locally overlain by post mineralization volcanics and later aluviam.

The Vulture vein is a singular identifiable structure which strikes east and west and dips to the north generally at 42 degrees. Mineable widths in the vein vary from a few inches to over 50 feet. Vein mineralization is primarily quartz with blocks of both hanging and foot wall materials included. Alteration of these included blocks and portions of the wall rock include chloritization, quartz, calcite and sericite.

Ore forming minerals include free gold, silver, galena blende and chalcopyrite.

Post mineral faulting has offset the vein and ore sheets with devastating effects.

ORE GRADES

The Vulture Mine is particularly well-known for its high grade ores. Pockets and small lenses of this high grade material may have run well over 100 to 200 ounces per ton. No doubt much of this picture rock was highgraded from the mine or stolen by the miners.

On an average, the Vulture ores ran over one ounce per ton initially and finally graded down to less than 3/4 of an ounce per ton.

This unusually high grade was the result of two unusual conditions. One was the high cost of mining in this remote location which necessitated the taking of only the higher grade ores. The second reason was the clean cutoff between the ore shoots and the barren vein materials.

A geologically recent covering of volcanics and valley fill covers the pre-Cambrian surface in the surrounding area. This cover prevents examination or surface exploration for continuation of the vein along strike or similar veins along the chloritic schist to sericitic schist contact.

PROPOSED EXPLORATION

Little of the information on the district has been compiled and reviewed for application of modern mineral exploration techniques. What is required at this time is an extensive information gathering program. This program should include:

- Literature search
- Land search and acquisition
- Surveying
- Aerial mapping
- Geological mapping and modeling
- Geophysical exploration
- Sampling and assaying
- Engineering and interpretation

If viable targets can be identified, the above would be followed by extensive drilling, analysis, property acquisition.

This work has been started. The literature search has identified the articles and publications listed in the references.

King Solomon's Mines has acquired properties in the surrounding area as shown on the attached map.

(1) Hutchinson, W. Spencer, "The Vulture Mine," Engineering & Mining Journal, VIII, No. 7, pp. 298-302.

(2) Hirsch, Bob, "In the Shadow of the Vulture," Outdoor Arizona, April 1974, p. 23 - popular literature.

(3) Smith, Duane A., "The Vulture Mine: Arizona's Golden Mirage," Arizona and the West, Autumn 1972, pp. 231-252.

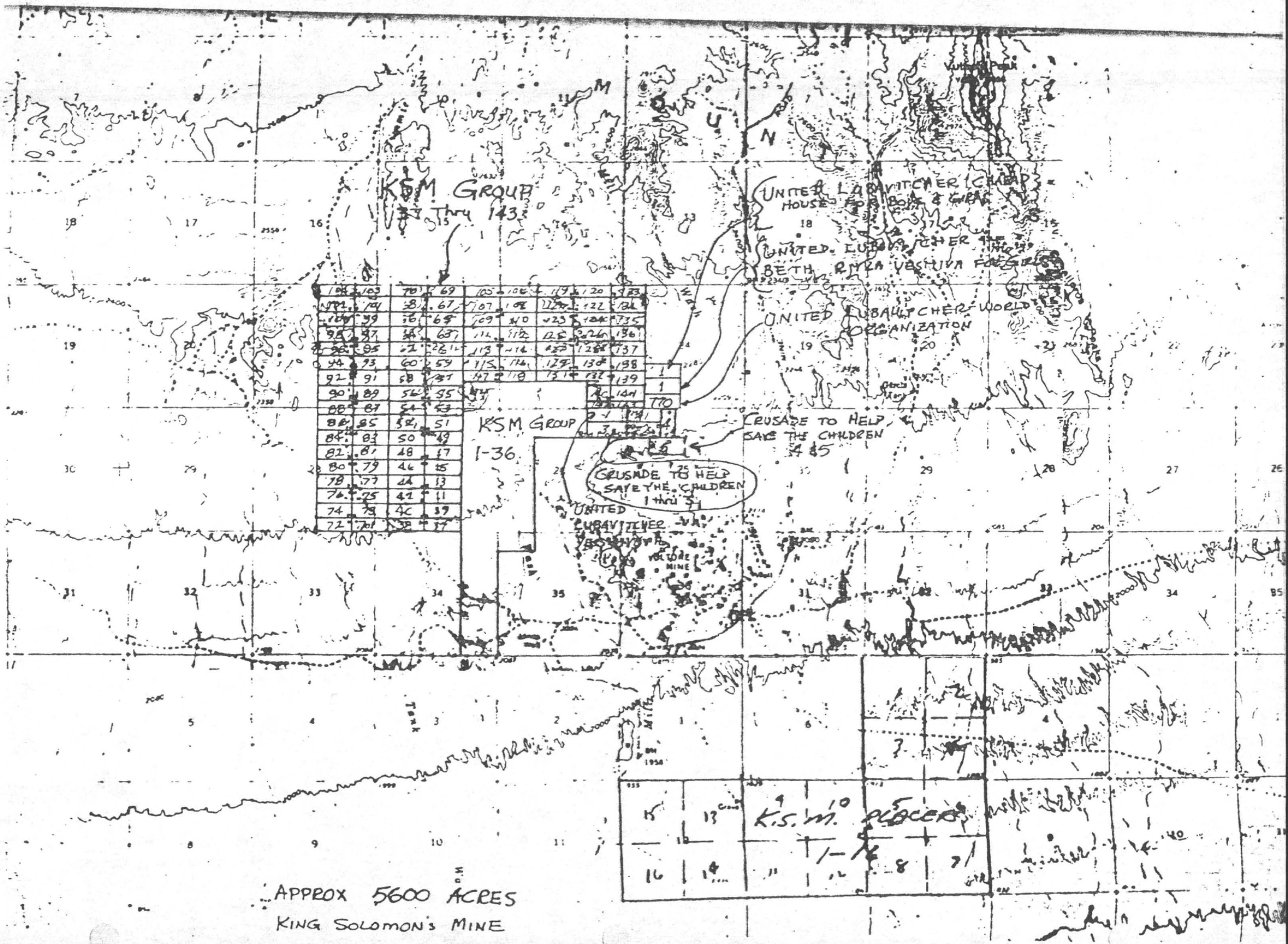
(4) Schleff, Dr. Eric, Vulture Bonanza, a report dated May 27, 1960.

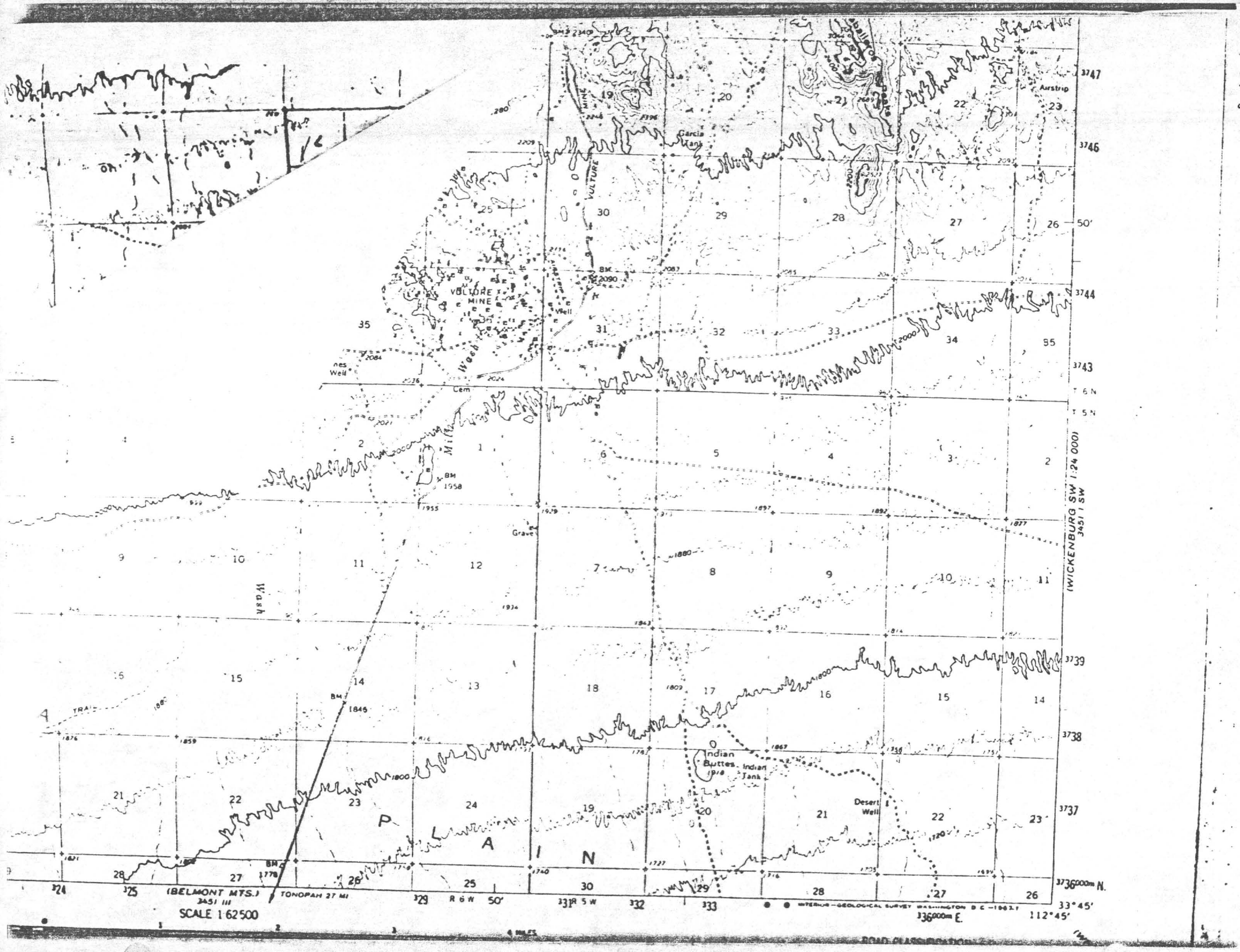
(5) Geologic Map of Maricopa County, Arizona Bureau of Mines, University of Arizona, Tucson.

(6) Kirwan, Gerald L., Report on the Vulture, May 20, 1976.

(7) Koschmann, A.H. and M.H. Bergendahl, Principal Gold-Producing Districts of the United States, U.S. Geological Survey Professional Paper 610, 1968, p. 40.

(8) Vulture Mine File, Arizona Department of Mineral Resources, Phoenix, Arizona.


KSM GROUP
Thru 143
KSM GROUP
1-36
CRUSADE TO HELP SAVE THE CHILDREN
1 thru 5
CRUSADE TO HELP SAVE THE CHILDREN
1 & 5
UNITED LUBAVITCHER CHARITY HOUSE FOR BOYS & GIRLS
UNITED LUBAVITCHER BETH RIVKA YESHIVA FOR GIRLS
UNITED LUBAVITCHER WORLD ORGANIZATION
UNITED LUBAVITCHER YESHIVA
VOLCANO MINE
K.S.M. 10 PLACER
APPROX 5600 ACRES
KING SOLOMON'S MINE



VULTURE MINE
Garcia Tank
Airstrip
Well
BM 2090
Cem
Grave
Wash
Indian Buttes
Indian Tank
Desert Well
P L A I N
T 6 N
T 5 N
(WICKENBURG SW 1:24 000)
3451 I SW
(BELMONT MTS.)
3451 III
TONOPAH 27 MI
R 6 W
R 5 W
SCALE 1:62 500
3736000m N.
336000m E.
33°45'
112°45'

terns for rain water. A little gold has been found in some of the veins, but no production is reported from any of them.

On the crest of the Gila Mountains, 3 miles north of the Fortuna mine, a little prospecting has been done on quartz veins in gneiss, but operations have been greatly hampered by the ruggedness of this part of the range. These veins generally contain more pulverent, red to black, iron oxide than quartz and have irregular widths of less than one foot. Some of them outcrop over lengths of several hundred feet, and one is traceable for about ½ mile. The quartz is coarse and even grained but broken by many fractures that are filmed with iron oxide. In places, thin, fine flakes of gold are abundantly scattered over the fracture surfaces, and sparse rounder particles are within the more solid quartz. Small grains of pyrite are present in the quartz. A little sericite occurs in the immediately adjacent wall rock.

Certain quartz veins in the northern portion of the Gila Mountains have been found to contain small amounts of gold, but little or no production has been made from them.

ECONOMIC POSSIBILITIES OF LA FORTUNA DISTRICT

The faulted segment of the Fortuna vein may eventually be found, particularly if future exploration for it is guided by thoroughly accurate, detailed stratigraphic and structural studies of the area.

Despite the fact that much search has been made for possible undiscovered gold-quartz veins in this region, further prospecting is warranted. The schist offers the most possibilities from the standpoints of permeable zones and structure, but none of the formations can yet be excluded as barren terrain. If the Fortuna vein is genetically connected with any of the stocks of the Red Top granite shown on Figure 8, the area for a few miles around these stocks is favorable ground. The best possibilities are along the margins of the range, on the pediment, particularly where the outcrops are hidden by gravels or talus.

CHAPTER VI—MARICOPA COUNTY

Maricopa County, as shown by Figure 9, comprises an irregular area about 130 miles long by 105 miles wide. It consists of broad desert plains with scattered mountain ranges that, for the most part, are made up of pre-Cambrian schists and granites and Tertiary volcanic rocks.

This county, which ranks fifth among the gold-producing counties of Arizona, has yielded approximately $7,400,000 of gold, most of which has come from the Vulture mine.[216]

[216] Statistics by J. B. Tenney.

VULTURE DISTRICT

VULTURE MINE

Situation: The Vulture mine is at the southern margin of the Vulture Mountains, about 9 miles west of the Hassayampa River and 14 miles by road southwest from Wickenburg.

History:[217] The story of the discovery of this deposit is given by Browne[218] as follows:

"A German, named Henry Wickenburg, with several companions, while prospecting upon the Hassayampa late in 1863, discovered a butte of quartz . . . After examining it closely they found traces of gold but attached no great value to the ore, and all but Mr. Wickenburg were reluctant to go to even the slight trouble of posting notices to claim the lode." During the next three years, Wickenburg treated rich portions of the outcrop ore in an arrastre at the river. The activities of the Apaches probably handicapped his operations.

Late in 1866, the Vulture Company, of New York, acquired the property, established a camp at the mine, and built a 40-stamp amalgamation and concentration mill near the site of the present town of Wickenburg. All of the machinery was shipped by water from San Francisco to Fort Mohave, a landing on the Colorado River, and hauled overland via Prescott.

This company operated steadily from 1867 until July, 1872, when the apparent pinching of the ore at water level and the $8 to $10 per ton charge for freighting ore from mine to mill discouraged the owners. During this period, approximately $1,850,000 worth of bullion was obtained from ore that ranged from $25 to $90 in gold per ton. More than 6,000 tons of concentrates and 80,000 tons of tailings that averaged $5 per ton were stored. Mining, milling and hauling costs amounted to $14.93 per ton.[219] About one hundred and twenty-five men were employed at the mine and mill.

In 1873, P. Smith and P. W. Taylor located a claim on the western extension of the lode and built a 5-stamp mill at the Hassayampa River. They operated intermittently for six years and produced about $150,000 worth of bullion.

In 1879, the Arizona Central Mining Company was formed to work the Vulture and the Taylor-Smith claims. An 80-stamp mill was built at the mine and connected with the Hassayampa River by a pipe line. This company operated on a big scale for nine years and treated a large amount of low-grade ore. Exact production figures for this period are lacking, but scattered es-

[217] Abstracted from unpublished notes of J. B. Tenney.

[218] Browne, J. Ross, Mineral resources of the states and territories west of the Rocky Mountains, p. 477, Washington, 1868.

[219] Raymond, R. W., Statistics of mines and mining in the states and territories west of the Rocky Mountains, p. 260. Washington, 1872.

KEY TO MINING DISTRICTS SHOWN ON FIGURE 9

MARICOPA COUNTY DISTRICTS

1 Vulture
2 Big Horn
3 Midway (Saddle Mountain)
4 White Picacho
5 Agua Fria
6 Cave Creek
7 Winifred
7-A Salt River

GILA COUNTY DISTRICTS

8 Payson or Green Valley
9 Spring Creek or Young
10 Globe
11 Banner or Dripping Spring

PINAL COUNTY DISTRICTS

12 Goldfields
13 Superior (Pioneer), Mineral Hill
14 Saddle Mountain
15 Cottonwood
16 Mammoth (Old Hat)
17 Casa Grande
18 Old Hat
19 Owl Head

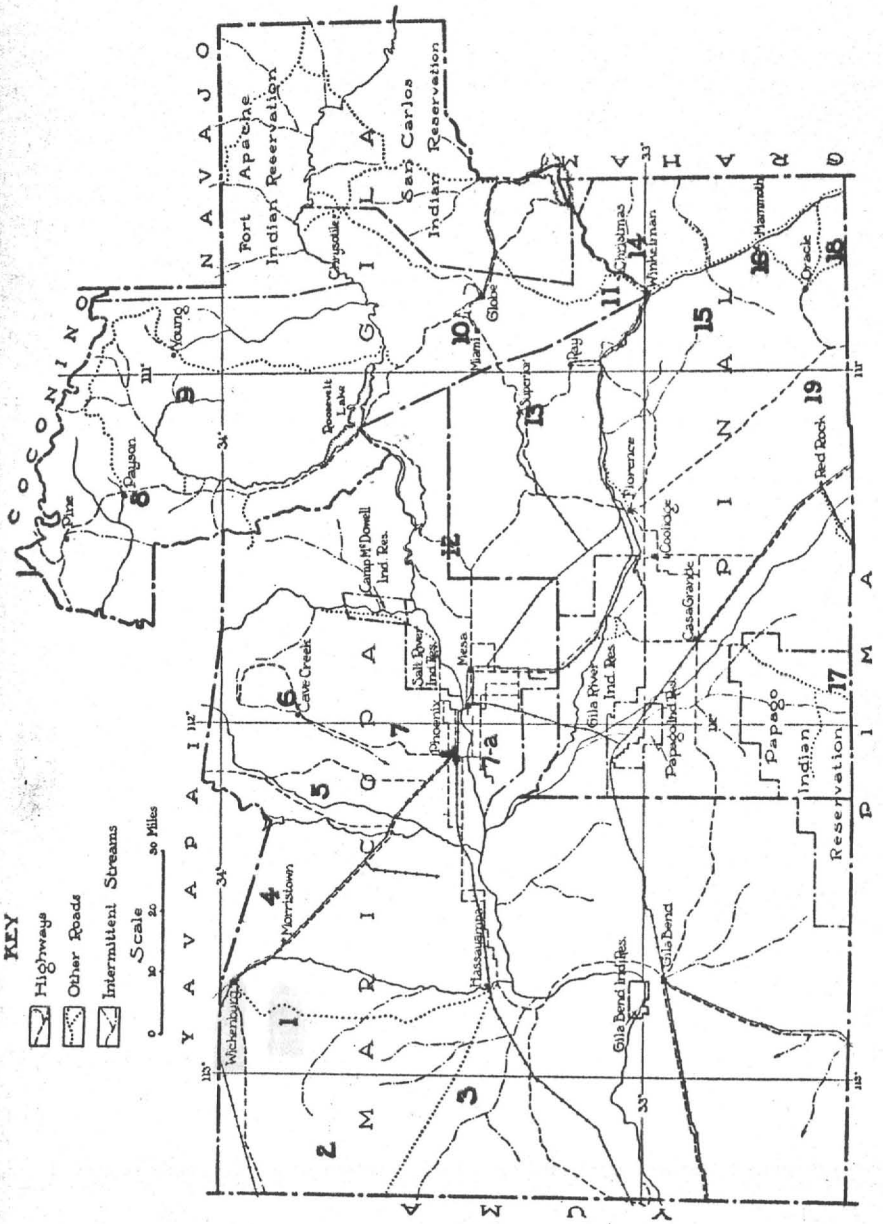


Figure 9.—Map showing location of lode and gold districts in Maricopa, Gila and Pinal counties.

timates by the Arizona Daily Star and U. S. Mint reports indicate a probable yield of about $2,000,000. The ore body was lost at a fault on the 300-foot level, and the mine was closed in 1888. During several ensuing years, the property was worked by lessees who made a production of probably $500,000.

In 1883, shipments of the old concentrates and tailings of the original mill yielded probably $500,000.

In 1908, the Vulture Mines Company acquired the property and, after a comprehensive geological study, found the faulted segment of the ore body. This company built a 20-stamp mill in 1910 and operated the mine until 1917 when the vein was again lost at a fault. The production by this company amounted to $1,839,375 of which 70 per cent was in bullion and 30 per cent was contained in concentrates. About two hundred men were employed. Water was pumped from two deep wells near the mine.

In 1927, D. R. Finlayson acquired the property and organized the Vulture Mining and Milling Company. Ore from old pillars was treated in a 5-stamp mill. Diamond drill exploration for the second faulted segment of the ore obtained encouraging results. The United Verde Extension Mining Company became financially interested in the property and, in 1930-1931, sank a 500-foot shaft to supplement the diamond drilling. More than 1,000 feet of lateral work was done, but the results were disappointing.

Recent operations: Since 1931, the property has been worked by A. B. Peach and D. R. Finlayson, of the East Vulture Mining Company. From September, 1931 to October, 1933, they produced about 10 tons of concentrates per month with a 10-stamp mill. When visited in February, 1934, this company was operating a 125-ton amalgamation and concentration mill for which ore was obtained by quarrying the unmined portions of the vein. The old tailings dump was being run through a 100-ton cyanide leaching plant.

PRODUCTION SUMMARY[220]

1866 to 1872	$1,850,000	Vulture Company
1873 to 1878	150,000 (est.)	Taylor & Smith
1873 to 1890	1,000,000 (est.)	Lessees; ore and old concentrates.
1879 to 1888	2,000,000 (est.)	Arizona Central
1908 to 1917	1,839,375	Vulture Mining Company
Total	$6,839,375	

[220] Figures compiled by J. B. Tenney.

Topography and geology: The high southeastern portion of the Vulture Mountains is made up of andesitic and rhyolitic lavas which lie upon a basement of schist and granite. In places, granite and rhyolite-porphyry dikes are abundant. The Vulture mine is near the southern or outer margain of a moderately hilly pediment, at an altitude of 2,000 feet. This pediment is floored with quartz-sericite schist, intruded by granite and rhyolite-porphyry. Complex faulting, partly pre-mineral and partly post-mineral, has affected these formations.

Vein and workings: The Vulture vein occurs within a fault zone that, at the surface, strikes slightly north of west and dips 45° N., nearly parallel to the lamination of the schist in the footwall. The hanging wall is partly a granite-porphyry dike, up to 80 feet wide, and partly schist. Near the vein, these rocks contain abundant sericite and some calcite and pseudomorphs of pyrite metacrysts.

Raymond,[221] who visited the mine in 1870 or 1871, says: "The croppings of this remarkable lode rise 80 feet above the level of the mesa . . . Eighty-five feet in width of this is vein matter which lies between well-defined walls. These croppings at the surface show gold everywhere; but there are here four distinct quartz layers which are richer than the remainder and have the following widths: The 'Red' or 'Front' vein, 12 feet; the 'Middle' vein, 6 feet; the 'Blue' vein, 9 feet; and the 'Black' vein, 5 feet; total width, 32 feet. These are not mined, but quarried, all above the level of the mouth of the main shaft being taken down together. Even in the talc (sericite) slate horses, between the pay-quartz, is gold . . . (In the slate) there are also numerous small quartz seams, from an inch to one foot thick, which contain much gold.

"At the 240-foot level the thickness of the vein is 47 feet. The richest ore lies here nearest to the walls."

The typical vein quartz is coarsely crystalline, locally cellular, and grayish white to white. Hutchinson[222] says: "In the oxidized zone the quartz is stained with iron oxide, and some wulfenite in characteristic tabular crystals is found in openings in the quartz . . . Below the zone of oxidation the vein minerals, other than quartz, are pyrite, galena, blende, and chalcopyrite. The proportion of these is indicated by the ratio of concentration, which was about thirty to one, and the assay of the concentrates, which was 12 to 15 per cent of lead, 8 to 12 per cent of zinc, one to 2 per cent of copper, and from $120 to $200 in gold. Metallic gold was found in all parts of the mine. Even in the deeper

[221] Raymond, R. W., Statistics of mines and mining in the states and territories west of the Rocky Mountains, pp. 257-58, Washington, 1872.

[222] Hutchinson, W. S., The Vulture mine: Eng. and Min. Jour., vol. 111, no. 7, pp. 298-302. Feb. 12, 1921.

workings where the ore was not oxidized but was made up of characteristic quartz with associated sulphides, coarse gold was present . . .This gold had a fineness of 760 to 780 . . .The galena was usually rich, so that, when the average mill concentrates assayed $150 per ton, the clean galena concentrate assayed $600.

"The outcrop was 1,000 feet long, but . . . the upper parts of the vein have been quarried in two large open pits. The westerly pit is 300 feet long and the easterly one 500 feet, with low-grade vein matter, which consists mostly of white quartz, remaining between them."

As indicated by areas of stoping shown on maps of the mine workings, the quarry pits were on the outcrops of two steeply eastward-pitching ore shoots of which the western one was mined to the 600-foot level, and eastern to the 1,000-foot level. Westward, the vein extends into granite and splits into several small but locally rich branches. Hutchinson continues:

"Granite of identical character was encountered in the westerly end of the 950 level, in the easterly end of the 1,550 level, and in a diamond drill hole put down from the latter. These points of exposure of granite indicate a probable easterly pitch of the contact."

Besides numerous faults of small displacement, two large faults, the Talmadge and Astor, have cut the vein. Hutchinson states that the Talmadge fault, which cuts the vein above the 450-foot level of the east shaft, dips 80° NE. and has a vertical displacement of 300 feet. The Astor fault, which cuts off the vein below the 950-foot level, is reported to be nearly parallel to the Talmadge fault, but its displacement remains unknown. Cross-sections of these features are given by Hutchinson, in the article already cited, and by A. P. Thompson, in Min. Jour., vol. 14, pp. 9-11, 28-30, 1930.

SUNRISE MINE

The Sunrise mine is in northwestern Maricopa County, about 18 miles west of Wickenburg and 2½ miles south of U. S. Highway 60.

This deposit was located in 1915. In 1927, it was purchased by W. M. Ebner and associates who sank a 330-foot incline and did about 2,000 feet of development work. C. W. Mitchell obtained the property late in 1933 and, from March 1 to May 16, 1934, shipped 600 tons of ore that averaged $24 in gold per ton.[223] About fourteen men were employed. Water for all purposes is hauled from Aguila, 11 miles distant.

The mine is at the southern base of some low hills that are composed of schist intruded by granitic porphyry. The vein strikes S. 20° W., dips about 45° NW., and occurs within a fault zone with granitic porphyry on the hanging wall and schist on

[223] Oral communication from Mr. Mitchell.

the foot wall. The vein is a stockwork, from 10 to 20 feet wide, of lenticular quartz veins, from a few inches to a few feet thick, in schist. Its outcrop is largely mantled by detritus.

The main adit or 200-foot level includes about 600 feet of drifts, and the 330-foot level about 150 feet of drifts. Most of the stopes extend above the 200-foot level. At the time of visit, the largest stope was some 45 feet high by 15 to 20 feet long by 4 to 5 feet wide.

The ore shoots appear to occur where the vein flattens and is intersected by transverse fractures. The ore consists of coarse, locally honeycombed to platy, brecciated white quartz with abundant limonite and hematite. In isolated places, a little pyrite is present. Most of the gold occurs as mediumly fine to coarse grains and flakes, mainly with pinkish-red hematite and limonite in fractures and cavities. The honeycombed and platy quartz with the hematite and limonite is reported to be of particularly high grade. According to Mr. Mitchell, the ore contains less than 0.25 ounce of silver per ounce of gold.

Wall-rock alteration along this vein consists of sericitization, silicification, and carbonatization.

BIG HORN DISTRICT

EL TIGRE MINE

El Tigre property of twelve claims, in the northwestern Big Horn Mountains mining district, of northwestern Maricopa County, is 15 miles by road south of Aguila.

This deposit was located in 1914 by the Sisson Brothers. According to local people, it was worked mainly between 1918 and 1924. During 1921, some bullion was produced in a 10-stamp mill built near a well, 3½ miles west of the mine. In 1922, ore was run through this mill, and old tailings were treated by cyanidation. According to J. B. Webb, the January, 1923, yield amounted to $14,454 worth of gold.[224] Figures on the total production are not available.

At the mine, fine-grained gneissic granite, intruded by basic dike rocks, floors a hilly pediment. The ore, which occurs within a nearly flat fault zone, consists of massive to coarse-grained shiny quartz with abundant specularite and limonite. The wall rock has been notably altered to sericite.

Most of the production came from drifts and stopes which extend for a few tens of feet into the vein. These workings indicate that the ore body was very lenticular, with a maximum width of about 5 feet. Three inclined shafts, 50, 197, and 200 feet deep, respectively, were sunk below the outcrop. They are reported to have cut two separate veins, but little or no production was made from them.

[224] Oral communication.

STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX 7, ARIZONA

March 19, 1962

RESUME' OF VULTURE MINE

The famous Vulture Mine was one of the early day bonanza gold producers of the West. It was discovered in late 1863 and produced substantially during the periods 1866-1868 and 1908-1917. Some desultory leaser output was made between those periods and then to 1927 in which year production was resumed at a fairly substantial rate until Government Regulation L-208 (issued in 1942) forced the closing of gold mines as a war measure. Total value of production has been estimated at around $15,000,000. Although there has been continuing interest in the possibilities of the property since the closing in 1942 no serious work has been done.

The last operator was the East Vulture Mining Co., ownership of which rests in the estates of Ernest Dickie and John C. Lincoln. The company address is Bagdad, Arizona c/o Geo. Colville. The property is now leased to an Arizona group with option to purchase.

The veins of the Vulture mine occur in a broad fault zone in a country rock which is principally a complex of granite and schist cut by numerous dikes. Intricate pre-mineral and post-mineral faulting has presented frequent development problems and the ore was "lost" and found a number of times. It is believed in some quarters that geologic study followed by interpretive exploration offers a good change for finding more ore bodies as in the past.

The mine contains some 25,000 ft. of workings reaching to a maximum slope depth of 1550 ft. although most of the past production came from above the 1050 ft. level.

The property comprises 11 patented and a large number of unpatented claims (some of which are said to be in process of patenting). Beside its mining possibilities the colorful old camp with many early-day structures still intact seems to offer attractive real estate possibilities as a "dude" ranch or for desert homesites, etc.

The mine is described in some detail in Arizona Bureau of Mines Bulletin No. 137, Arizona Lode Gold Mines & Mining (1934). Unfortunately this publication is out of print, but a copy may be consulted in most large libraries in the west.

Travis P. Lane, Field Engineer

VULTURE MINE MARICOPA COUNTY

It was learned that Dr. Mangun was no longer connected with the Vulture

LP 2/10/64

2/14/64 - Visited the Vulture Mine where R. H. Bennett is sampling and mapping for two men who are supposed to have taken over the mine. No names revealed.

EGW WR 2/27/64

MEMO

October 12, 1960

VULTURE MINE

Travis P. Lane

Visited the Vulture Mine. This property was taken over last year by R. B. Johnson, 4008 N. 48 Pl., Phx., and Jack Turnbull of Coolidge on a lease and purchase contract from the Hillside Mining Co. Involved in the deal were 12 patented claims and 14 unpatented claims. It is said that a substantial initial cash payment was placed in escrow and that release of the escrowed funds and action on the property is held up pending final settlement of the Lincoln and Dickie estates. Neither of the partners was present at time of the visit. "Dick" Williams, General Delivery, Wickenburg, is the caretaker and is living at the property.

Vulture Mine
Vulture Mtns. 15' Sec. 25, 26, 35, 36 T. 6 N, R. 6 W
Maricopa County.

reference: Arizona Dept of Mineral Resources
Vulture Mine Maricopa County (file)

present owner: Mr. Beals of Scottsdale, Az

history of the mine:
The mine was discovered in 1863 by Henry Wickenburg who owned the property although there were many problems with the Apaches. From 1863 to 1887 the mine produced about $21 million in gold, silver and lead. The mine shut down in 1887 since the main ore body was lost by faulting. Intermittent operations occurred until 1907 when regular production began again with the finding of the main ore body. The mine shut down in 1917 when the ore body was lost again by faulting. The mine operated intermittently until 1937 when the property was acquired by the East Vulture Mining Company. Production resumed at a fairly normal rate until 1942 when Government Regulation L-208 forced the closing of gold mines as a war measure. According to a 1968 report the mine produced $60 million in gold from 1863 to 1942. By 1960 the property was owned by the Hillside Mining Co. and leased to R.B. Johnson of Phoenix and Jack Turnbull of Coolidge. In 1962 Dr. George Mangun of Phoenix purchased

Vulture Mine (cont.)

the property. In 1967 the Vulture Mining and Milling Co. bought the property in a sheriff's auction for #53,077 since the land was defaulted by Mangum, Turnbull, and Johnston. By 1973 M. Beals of Scottsdale was the owner of the mine. The mine is now a tourist attraction. Some mining activity occurred until mid 1976 when the placer mining equipment was removed. Supposedly Beals will buy equipment and continue the work soon.

geology: precambrian hornblende schist through which a great quartz porphyry dike 50 to 90 feet wide has intruded to form the Vulture Lode. This lode extends about 3500 feet in a NW-SE direction and dips 40° N. There are several quartz veins ranging from a few inches to several feet in the large dike. Some of the dikes have been mined to a known width of over 40 feet.

ore: 1958 report
in the oxidized zones and associated with the foot and hanging walls are siliceous and sericitic schists which are highly mineralized with gold and silver.

assays: 1958 report
from #1 to #4 per ton over the dikes entire width and length.

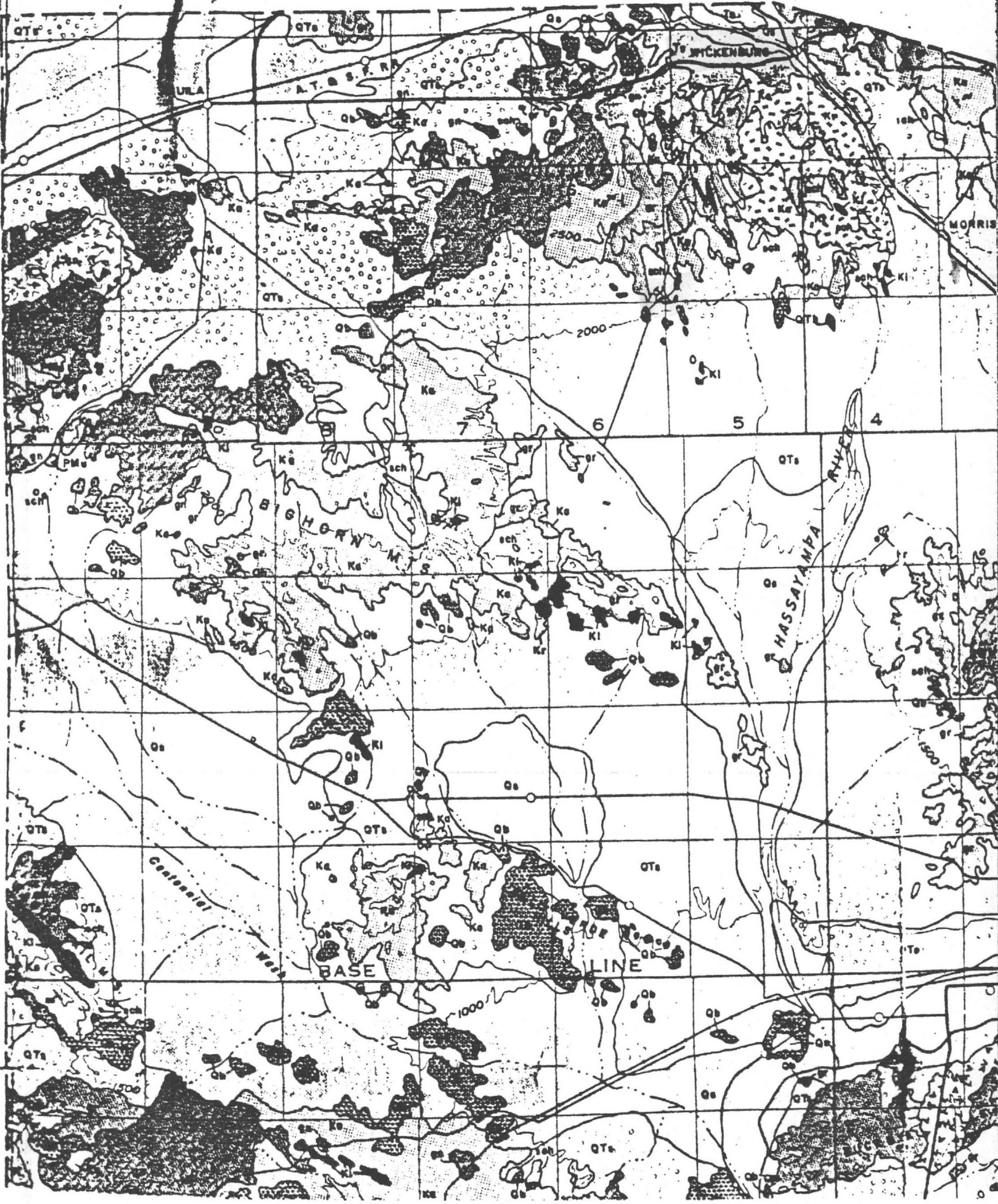
Vulture Mine (cont)

total production:
$30 million to $400 million according to various reports in the file.

Minerals: gold, silver, lead

the mine contains 25,000 ft. of workings reaching to a maximum slope depth of 1552 feet.

~~the~~ property consists of 11 patented and many unpatented claims



WICKENBURG
A. T. & S. F. R.R.
MORRIS
BIG HORN MTS
HASSAYAMPA RIVER
Centennial Wash
BASE LINE
7
6
5
4
2500
2000
1500
1000

CAVE CREEK
PHOENIX MTS
McDOWELL MTS
AGUA FRIA RIVER
NEW RIVER
PEORIA
GLENDALE
PHOENIX
SALT RIVER
TEMPE
GILA R.
Cave Cr.

422343

WATER SUPPLY
HYDROLOGY
IRRIGATION
CIVIL ENGINEERING

WM. A. RAMSEY

PROFESSIONAL ENGINEER
1138 EAST HIGHLAND AVENUE
PHOENIX, ARIZONA 85014
(602) 274-6017

ARIZONA
NEW MEXICO
NEVADA
UTAH

18 November 1980

NOTICE (N)

Rabbi Abraham Novitsky
c/o United States Perlite, Ltd.
166 Montague Street
Brooklyn, New York 11201

RE: Vulture Gold Nugget Mine #1 through 31 (Lode Claims)
Vulture Gold Dust Mine #1 through 4 (Lode Claims)
King Solomon's Mine #144 & 145 (Lode Claims)
all above claims was staked August 7, 1980

Dear Rabbi Abraham:

I am very happy to have assisted you, along with other members of my staff, in the location, staking, and other functions required by the varied County, State and Federal governmental agencies in the acquisition of the above referenced gold mining claims in the Vulture Mining District of Maricopa County, Arizona.

As you know, the Vulture Mining District has been one of the major gold producing districts of the State of Arizona since the mid-nineteenth century, having produced many millions of dollars at the old price of $20.00 per ounce. It would appear that, with the present price of gold, these claims could produce countless millions of dollars more.

Inasmuch as this staking of these claims was for a number of worthy charities, it has been my pleasure to assist you.

However, when you are ready to commence other phases of the work on these claims, such as your proposed mining operation, milling, etc., the press of business will make certain charges imperative, as it will take large quantities of not only my time, but the time of members of my staff, which must be reimbursed.

Very truly yours,

Registered Professional Engineer (Civil) CERTIFICATE NO. 6312 WM. RAMSEY Date Signed 11-18-80 ARIZONA, U.S.A.

Wm. A. Ramsey, P.E.

STATE OF ARIZONA } ss
County of Maricopa }

I hereby certify that the within instrument was filed and recorded at request of
A. Novitsky
DEC 23 1980 -11 30
in Docket 14912
on Page 910

Witness my hand and official seal the day and year aforesaid.
Bill Henry
County Recorder
By Sherry Ono
Deputy Recorder

RECEIVED
DEC 23 1980
DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

COPY

422544

WATER SUPPLY
HYDROLOGY
IRRIGATION
CIVIL ENGINEERING

WM. A. RAMSEY

PROFESSIONAL ENGINEER
1138 EAST HIGHLAND AVENUE
PHOENIX, ARIZONA 85014
(602) 274-6017

ARIZONA
NEW MEXICO
NEVADA
UTAH

NOTICE (N

18 November 1980

Rabbi Abraham Novitsky
c/o United States Perlite, Ltd.
166 Montague Street
Brooklyn, New York 11201

RE: Vulture Gold Nugget Mine #1 through 31 (Lode Claims)
Vulture Gold Dust Mine #1 through 4 (Lode Claims)
King Solomon's Mine #144 & 145 (Lode Claims)

Dear Rabbi Abraham:

I am very happy to have assisted you, along with other members of my staff, in the location, staking, and other functions required by the varied County, State and Federal governmental agencies in the acquisition of the above referenced gold mining claims in the Vulture Mining District of Maricopa County, Arizona.

As you know, the Vulture Mining District has been one of the major gold producing districts of the State of Arizona since the mid-nineteenth century, having produced many millions of dollars at the old price of $20.00 per ounce. It would appear that, with the present price of gold, these claims could produce countless millions of dollars more.

Inasmuch as this staking of these claims was for a number of worthy charities, it has been my pleasure to assist you.

However, when you are ready to commence other phases of the work on these claims, such as your proposed mining operation, milling, etc., the press of business will make certain charges imperative, as it will take large quantities of not only my time, but the time of members of my staff, which must be reimbursed.

Very truly yours

Registered Professional Engineer
CERTIFICATE NO. 6312
Wm. A. RAMSEY
Date Signed 11-18-80
ARIZONA, U.S.A.

Wm. A. Ramsey, P.E.

STATE OF ARIZONA }
County of Maricopa } ss

I hereby certify that the within instrument was filed and recorded at request of
O Novitsky
DEC 23 1980 -11 30
in Docket 14912
on Page 911

Witness my hand and official seal the day and year aforesaid.
Bill Henry
County Recorder
By Jerry Owens
Deputy Recorder

RECEIVED
DEC 1980
DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

COPY

422341

WATER SUPPLY
HYDROLOGY
IRRIGATION
CIVIL ENGINEERING

WM. A. RAMSEY

PROFESSIONAL ENGINEER
1138 EAST HIGHLAND AVENUE
PHOENIX, ARIZONA 85014
(602) 274-6017

ARIZONA
NEW MEXICO
NEVADA
UTAH

15 September 1979

Rabbi Abraham Novitsky
c/o United States Perlite, Ltd.
166 Montague Street
Brooklyn, New York 11201

RE: Crusade to Help Save the Children (Lode Claims 1 through 5)
United Lubavitcher Beth Rivka Yeshiva for Girls (1 Lode Claim)
United Lubavitcher World Orgaization #770 (1 Lode Claim)
United Lubavitcher Yeshivoth #1 (1 Lode Claim)
United Lubavitcher Chabad House for Boys and Girls #1 (1 Lode Claim)
King Solomon's Mine #1 through 143 (143 Lode Claims)
King Solomon's Mine #1 through 16 (16 Placer Claims)

Dear Rabbi Abraham:

I am very happy to have assisted you, along with other members of my staff, in the location, staking, and other functions required by the varied County, State and Federal governmental agencies in the acquisition of the above referenced gold mining claims in the Vulture Mining District of Maricopa County, Arizona.

As you know, the Vulture Mining District has been one of the major gold producing districts of the State of Arizona since the mid-nineteenth century, having produced many millions of dollars at the old price of $20.00 per ounce. It would appear that, with the present price of gold, these claims could produce countless millions of dollars more.

Inasmuch as this staking of these claims was for a number of worthy charities, it has been my pleasure to assist you.

However, when you are ready to commence other phases of the work on these claims, such as your proposed mining operation, milling, etc, the press of business will make certain charges imperative, as it will take large quantities of not only my time, but the time of my staff which must be reimbursed.

Very truly yours,

Registered Professional Engineer (Civil) CERTIFICATE NO. 6312 ARIZONA, U.S.A. Date Signed 9-15-79

Wm. A. Ramsey, P. E.

STATE OF ARIZONA
County of Maricopa } ss

I hereby certify that the within instrument was filed and recorded at request of
A Nowitsky
DEC 23 1980 -11 30
in Docket 14912
on Page 908
Witness my hand and official seal the day and year aforesaid.
Bill Henry
County Recorder
By Sara Ovna
Deputy Recorder

COPY

RECEIVED
DEC 23 1980
DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

422342

NOTICE (N)

WATER SUPPLY
HYDROLOGY
IRRIGATION
CIVIL ENGINEERING

WM. A. RAMSEY

ARIZONA
NEW MEXICO
NEVADA
UTAH

PROFESSIONAL ENGINEER
1138 EAST HIGHLAND AVENUE
PHOENIX, ARIZONA 85014
(602) 274-6017

15 December 1980

Rabbi Abraham Novitsky
c/o United States Perlite, Ltd.
166 Montague Street
Brooklyn, New York 11201

RE: U. S. P. #1 through 1219 (Lode Claims)

Dear Rabbi Abraham:

It has been my pleasure to assist you for the past several years in the staking, location and other functions required by the varied County, State and Federal governmental agencies in the acquisition of the above referenced mining claims, located in the Superior Mining District of Pinal County, Arizona for your varied charitable organizations.

As you know, the Superior Mining District is internationally known for its copper, gold, silver and other base metal production, as well as for its perlite.

It would seem to me that, with the present energy shortage and the very excellent accessability of these claims (being adjacent to the Magma-Arizona railroad, it might be well for you to look into putting these perlite claims into production. Further, perlite is a most efficient insulating material, can be made into a myiad of products including insulating board, insulating concrete, insulated clothing, pipe insulation, wall insulation, fire-proofing, water saving in horticulture, etc. It is also a major product for light-weight stuctures up to 25 floors under New York State Building Codes, and approved by the U. S. Department of Housing and Urban Development.

In view of the above, this large block of mining claims could be worth billions of dollars if properly handled.

When you are ready to commence other phases of the work on these claims, such as mining, milling, etc., we will be ready and willing to assist you in any way possible. For this, charges will be worked out on an equitable basis at the time.

Very truly yours

Registered Professional Engineer
CERTIFICATE NO. 6312
WM. A. RAMSEY
Date Signed 12-15-80
ARIZONA, U.S.A.

Wm. A. Ramsey, P. E.

STATE OF ARIZONA }
County of Maricopa } ss

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

DEC 23 1980 -11 30

in Docket 14912

on Page 909

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

Bill Henry
County Recorder

By Larry Ong
Deputy Recorder

RECEIVED
1980
DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

COPY

CYPRUS

ASSAY CERTIFICATE

April 22 197

77-0106

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
77RE 1	.014							
2	.034							
3	.016							
4	.010							
5	.016							
6	.010							
7	.016							
8	.010							
9	.830							
10	.046							
11	.014							
12	.012							
13	.126							
14	.022							
15	.028							
16	.016							
17	.046							
18	.010							
19	<.01							
20	<.01							
21	<.01							
22	<.01							
23	<.01							
24	.012							
25	.010							
26	.424							
27	<.01							

Ed Post
re Comp. program
Stds. analyses
Assay data

Some Free Gold Present

ASSAYER

CYPRUS ASSAY CERTIFICATE April 22 197 7

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0106
TRE 28	.126							
29	.100							
30	.070							
31	<.01							
32	<.01							
33	.040							
34	.100							
35	.010							
36	.020							
37	.036							
38	.010							
39	.020							
40	.086							
41	.042							
42	<.01							
43	<.01							
44	<.01							
45	<.01							
46	<.01							
47	<.01							
48	<.01							
49	<.01							
50	<.01							
51	<.01							
52	.488							
53	.010							
54	<.01							

Robert J. Dell
ASSAYER

CYPRUS ASSAY CERTIFICATE April 22 1977

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0106
77RE 55	<.01							
56	<.01							
57	.026							
58	.018							
59	.034							
60	.074							
61	.034							
62	.014							
63	.304	.412	.240	.238				
64	.124							
65	.066							
66	.044							
67	.038							
68	.022							
69	.062							
70	.016							
71	.022							
72	.022							
73	.022							
74	.022							
75	.044							
76	048							
77	.104							
78	<.01							
79	<.01							
80	<.01							
81	<.01							

Robert J. Deal
ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
RE 82	.020							
83	.010							
84	<.01							
85	<.01							
86	<.01							
87	<.01							
88	<.01							
89	<.01							
90	<.01							
91	<.01							
92	<.01							
93	<.01							
94	<.01							
95	.022							
96	.026							
97	.026							
98	.020							
99	.056							
100	.022							
101	<.01							
102	.050							
103	.032							
104	.088							
105	.082							
106	.090							
107	.062							
108	.020							

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
RE 109	<.01							
110	.040							
111	.022							
112	.100							
113	.026							
114	.010							
115	.030							
116	.010							
117	.030							
118	.010							
119	.010							
120	.026							
121	.030							
122	.010							
123	.022							
124	.018							
125	.010							
126	.014							
127	<.01							
128	.014							
129	.032							
130	.032							
131	.012							
132	.048							
133	.030							

Robert J. Dahl

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 11 197 7

77-0099

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 134	.158							
135	.088							
136	.044							
137	.224							
138	<.01							
139	.028							
140	.028							
141	.100							
142	<.01							
143	.024							
144	<.01							
145	.036							
146	.120							
147	.084							
148	<.01							
149	.024							
150	.016							
151	<.01							
152	<.01							
153	<.01							
154	<.01							
155	<.01							
156	<.01							
157	<.01							
158	<.01							
159	<.01							
160	<.01							

Robert J. Dean

ASSAYER

CYPRUS ASSAY CERTIFICATE April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
77RE 160	<.01							
161	<.01							
162	<.01							
163	<.01							
164	<.01							
165	.036							
166	<.01							
167	.036							
168	.028							
169	.068							
170	.040							
171	.024							
172	.024							
173	<.01							
174	<.01							
175	<.01							
176	.052							
177	.024							
178	.020							
179	.064							
180	.044							
181	.020							
182	.048							
183	.308							
184	.100							
185	.136							
186	.020							

[signature]
ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
RE 187	.104							
188	.068							
189	.160							
190	.052							
191	.030							
192	.014							
193	.010							
194	<.01							
195	<.01							
196	.014							
197	<.01							
198	.010							
199	.010							
200	<.01							
201	.166							
202	.086							
203	.142							
204	.060							
205	.038							
206	.012							
207	<.01							
208	<.01							
209	.100							
210	.598							
211	<.01							
212	.018							
213	.012							

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 214	.467							
215	.046							
216	.010							
217	.178							
218	<.01							
219	.010							
220	.078							
221	<.01							
222	.110							

Robert J. Deal

ASSAYER

CYPRUS ASSAY CERTIFICATE April 21 1977

Sample No	Oz Au	Repeats Oz Au	Oz Au		% Zn			77-0116
77RE 223	.202							
224	.192							
225	.314	.336	.304					
226	.050							
227	.012							
228	.078							
229	.180	.114	.122					
230	.010							
231	.022							
232	022							
233	.048							
234	.026							
235	.024							
236	.022							
237	.018							
238	.014							
239	.046							
240	.024							
241	.010							
242	<.01	<.01						
243	<.01							
244	<.01							
245	<.01							
246	.050							
247	<.01							
248	.010							
249	<.01							

Some "Free" Gold appears to be present.

Gold Ideal
ASSAYER

CYPRUS ASSAY CERTIFICATE April 21 1977

77-0116

Sample No	Oz Au	Oz Au Repeats	oz Au	%Pb	%Zn			
TRE 250	.010							
251	.022	.010						
252	<.01							
253	.102							
254	<.01							
255	.102							
256	.102							
257	<.01	.010						
258	.012							
259	.070							
260	.016	.012						
261	.010							
262	.036							
263	.054							
264	.038							
265	.038							
266	<.01							
267	.078							
268	.046							
269	.022							
270	<.01							
271	<.01							
272	.074							
273	<.01							
274	.016	.010						
275	<.01							
276	.020							

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 21 1977

77-0116

Sample No	Oz Au	Oz Au (Repeats)	Oz Au	% Pb	% Zn			
77RE 277	<.01							
278	<.01							
279	.010							
280	.020							
281	.020							
282	.010							
283	.010							
284	.010							
285	.024							
286	<.01							
287	.062							
288	.018							
289	.030							
290	.102	.104	.114					
291	.028							
292	.202	.234						
293	.042							
294	.066							
295	.050							
296	.028							
297	.024							
298	<.01							
299	.020							
300	.020							
301	<.01							
302	.030							
303	.074							

Robert J. Dean

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 21 1977

77-0116

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			
77RE 304	.102							
305	.016							
306	<.01							
307	<.01							
308	.018							
309	.040							
310	.036							
311	<.01							
312	.200							
313	<.01							
314	<.01							
315	<.01							
316	.020							
317	<.01							
318	.048							
319	<.01							

ASSAYER

CYPRUS ASSAY CERTIFICATE April 22 1977

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			77-0106
77RE 1	.014							
2	.034							
3	.016							
4	.010							
5	.016							
6	.010							
7	.016							
8	.010							
9	.830							
10	.046							
11	.014							
12	.012							
13	.126							
14	.022							
15	.028							
16	.016							
17	.046							
18	.010							
19	<.01							
20	<.01							
21	<.01							
22	<.01							
23	<.01							
24	.012							
25	.010							
26	.424							
27	<.01							

Some Free Gold Present

ASSAYER

CYPRUS ASSAY CERTIFICATE April 22 197 7

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			77-0106
7RE 28	.126							
29	.100							
30	.070							
31	<.01							
32	<.01							
33	.040							
34	.100							
35	.010							
36	.020							
37	.036							
38	.010							
39	.020							
40	.086							
41	.042							
42	<.01							
43	<.01							
44	<.01							
45	<.01							
46	<.01							
47	<.01							
48	<.01							
49	<.01							
50	<.01							
51	<.01							
52	.488							
53	.010							
54	<.01							

Robert J. Dodd
ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
77RE 55	<.01							
56	<.01							
57	.026							
58	.018							
59	.034							
60	.074							
61	.034							
62	.014							
63	.304	.412	.240	.238				
64	.124							
65	.066							
66	.044							
67	.038							
68	.022							
69	.062							
70	.016							
71	.022							
72	.022							
73	.022							
74	.022							
75	.044							
76	048							
77	.104							
78	<.01							
79	<.01							
80	<.01							
81	<.01							

Robert J. Deal

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
RE 82	.020							
83	.010							
84	<.01							
85	<.01							
86	<.01							
87	<.01							
88	<.01							
89	<.01							
90	<.01							
91	<.01							
92	<.01							
93	<.01							
94	<.01							
95	.022							
96	.026							
97	.026							
98	.020							
99	.056							
100	.022							
101	<.01							
102	.050							
103	.032							
104	.088							
105	.082							
106	.090							
107	.062							
108	.020							

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 22 1977

77-0106

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
RE 109	<.01							
110	.040							
111	.022							
112	.100							
113	.026							
114	.010							
115	.030							
116	.010							
117	.030							
118	.010							
119	.010							
120	.026							
121	.030							
122	.010							
123	.022							
124	.018							
125	.010							
126	.014							
127	<.01							
128	.014							
129	.032							
130	.032							
131	.012							
132	.048							
133	.030							

Robert J. Dunn

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 11 197 7

77-0099

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
7RE 134	.158							
135	.088							
136	.044							
137	.224							
138	<.01							
139	.028							
140	.028							
141	.100							
142	<.01							
143	.024							
144	<.01							
145	.036							
146	.120							
147	.084							
148	<.01							
149	.024							
150	.016							
151	<.01							
152	<.01							
153	<.01							
154	<.01							
155	<.01							
156	<.01							
157	<.01							
158	<.01							
159	<.01							
160	<.01							

Robert J. Dean

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 11 197 7

77-0098

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
77RE 160	<.01							
161	<.01							
162	<.01							
163	<.01							
164	<.01							
165	.036							
166	<.01							
167	.036							
168	.028							
169	.068							
170	.040							
171	.024							
172	.024							
173	<.01							
174	<.01							
175	<.01							
176	.052							
177	.024							
178	.020							
179	.064							
180	.044							
181	.020							
182	.048							
183	.308							
184	.100							
185	.136							
186	.020							

Bohl Jakeal

ASSAYER

CYPRUS ASSAY CERTIFICATE April 11 1977

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn			77-0099
PRE 187	.104							
188	.068							
189	.160							
190	.052							
191	.030							
192	.014							
193	.010							
194	<.01							
195	<.01							
196	.014							
197	<.01							
198	.010							
199	.010							
200	<.01							
201	.166							
202	.086							
203	.142							
204	.060							
205	.038							
206	.012							
207	<.01							
208	<.01							
209	.100							
210	.598							
211	<.01							
212	.018							
213	.012							

[signature]
ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 11 1977

77-0099

Sample No	Oz Au	Oz Ag	%Cu	%Pb	%Zn			
77RE 214	.467							
215	.046							
216	.010							
217	.178							
218	<.01							
219	.010							
220	.078							
221	<.01							
222	.110							

Robert J. Deal

ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 21 1977

Sample No	Oz Au	Repeats Oz Au	Oz Au		%Zn			77-0116
77RE 223	.202							
224	.192							
225	.314	.336	.304					
226	.050							
227	.012							
228	.078							
229	.180	.114	.122					
230	.010							
231	.022							
232	022							
233	.048							
234	.026							
235	.024							
236	.022							
237	.018							
238	.014							
239	.046							
240	.024							
241	.010							
242	<.01	<.01						
243	<.01							
244	<.01							
245	<.01							
246	.050							
247	<.01							
248	.010							
249	<.01							

Some "Free" Gold Appears To be present.

Gold J Neal
ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 21 1977

Sample No	Oz Au	Oz Au (Repeats)	oz Au	% Pb	% Zn			77-0116
TRE 250	.010							
251	.022	.010						
252	<.01							
253	.102							
254	<.01							
255	.102							
256	.102							
257	<.01	.010						
258	.012							
259	.070							
260	.016	.012						
261	.010							
262	.036							
263	.054							
264	.038							
265	.038							
266	<.01							
267	.078							
268	.046							
269	.022							
270	<.01							
271	<.01							
272	.074							
273	<.01							
274	.016	.010						
275	<.01							
276	.020							

Robert J. Wood

ASSAYER

CYPRUS ASSAY CERTIFICATE April 21 1977

77-0116

Sample No	Oz Au	Oz Au Repeats	Oz Au	%Pb	%Zn			
77RE 277	<.01							
278	<.01							
279	.010							
280	.020							
281	.020							
282	.010							
283	.010							
284	.010							
285	.024							
286	<.01							
287	.062							
288	.018							
289	.030							
290	.102	.104	.114					
291	.028							
292	.202	.234						
293	.042							
294	.066							
295	.050							
296	.028							
297	.024							
298	<.01							
299	.020							
300	.020							
301	<.01							
302	.030							
303	.074							

Robert J. Deal
ASSAYER

CYPRUS

ASSAY CERTIFICATE

April 21 1977

77-0116

Sample No	Oz Au	Oz Ag	% Cu	% Pb	% Zn		
77RE 304	.102						
305	.016						
306	<.01						
307	<.01						
308	.018						
309	.040						
310	.036						
311	<.01						
312	.200						
313	<.01						
314	<.01						
315	<.01						
316	.020						
317	<.01						
318	.048						
319	<.01						

ASSAYER

INC.
CHEMICAL & MINERALOGICAL SERVICES · 445 WEST 2700 SOUTH · SALT LAKE CITY, UTAH 84115

10TH ANNIVERSARY

ANALYTICAL REPORT FOR:

TO
RETURN TO
APR 4 - 1977

Cyprus Exploration Co. E. A. Schmidt

555 So. Flower - 37th Floor

Los Angeles, CA 90071

OUR NUMBER 7926

DATE March 29, 1977

CUSTOMER'S ORDER NO.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 1	.09	.009	1040
2	.06	.021	630
3	.04	.017	520
4	.01	.007	210
5	.07	.008	75
6	.05	.005	60
7	.03	.011	310
8	.02	.008	90
9	.30	.680*	240
10	.03	.037	85
11	.01	.015	140
12	.04	.017	280
13	.30	.072	350
14	.06	.017	95
15	.03	.011	45
16	.07	.010	45
17	.02	.015	85
18	.05	.004	25
19	.03	.003	40
20	.02	.005	40

* Analysis has been rechecked.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 21	.02	.003	55
22	.02	.003	35
23	.02	.007	70
24	.03	.011	140
25	.10	.045	480
26	.38	.360*	250
27	.36	.200*	380
28	.13	.111	670
29	.05	.080	210
30	.03	.026	55
31	.02	.011	170
32	.11	.012	130
33	.12	.035	180
34	.11	.069	340
35	.05	.017	160
36	.05	.030	210
37	.14	.018	300
38	.01	.008	60
39	.06	.021	300
40	.12	.076	320
41	.22	.042	260
42	.03	.007	55
43	.02	.006	55
44	.02	.007	45
45	.01	.004	30

* Analyses have been rechecked.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 46	.01	.002	25
47	.01	.002	25
48	.02	.004	35
49	.03	.002	25
50	.04	.003	55
51	.08	.020	70
52	.24	.456	70
53	.03	.008	60
54	.03	.007	90
55	.05	.007	260
56	.10	.043	45
57	.12	.016	100
58	.22	.008	350
59	.12	.054	1450
60	.16	.045	315
61	.09	.056	280
62	.10	.007	200
63	.29	.195	75
64	.25	.036	25
65	.05	.059	40
66	.10	.012	75
67	.16	.046	120
68	.05	.017	60
69	.08	.041	40
70	.11	.047	35

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 71	.10	.023	18
72	.06	.015	55
73	.03	.015	30
74	.08	.023	25
75	.29	.026	95
76	.07	.033	85
77	.12	.048	35
78	2.10	.020	30
79	.04	.003	40
80	.05	.002	30
81	.06	< .001	25
82	.07	.020	30
83	.04	.009	35
84	.03	.005	25
85	.07	.007	95
86	.04	.004	65
87	.04	.004	18
88	.04	.003	35
89	.02	.002	75
90	.03	.001	65
91	.05	.002	85
92	.05	.001	130
93	.07	.003	45
94	.03	.004	45
95	.03	.008	65

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 96	.04	.015	70
97	.06	.014	110
98	.06	.014	90
99	.11	.036	270
100	.08	.010	110
101	.03	.010	110
102	.40	.038	580
103	.19	.026	610
104	.64	.080	880
105	.11	.057	500
106	.16	.069	330
107	.05	.069	130
108	.05	.023	55
109	.05	.029	85
110	.06	.045	110
111	.08	.015	40
112	.10	.072	75
113	.05	.026	40
114	.05	.014	160
115	.07	.021	100
116	.02	.007	50
117	.02	.020	60
118	.02	.007	55
119	.05	.006	410
120	.03	.018	470

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 121	.01	.026	85
122	.01	.009	100
123	.01	.018	80
124	.01	.018	150
125	.03	.004	200
126	.07	.006	420
127	.05	.012	340
128	.06	.009	90
129	.06	.009	160
130	.05	.015	60
131	.06	.007	110
132	.06	.030	130
133	.07	.017	80
134	.19	.051	330
135	.06	.036	190
136	.03	.035	120
137	.28	.107	200
138	.07	.007	100
139	.06	.014	65
140	.04	.039	75
141	.04	.050	160
142	.21	.017	115
143	.04	.017	200
144	.05	.020	160
145	.05	.026	85

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 146	.07	.054	95
147	.04	.051	90
148	.03	.004	35
149	.05	.026	200
150	.04	.014	190
151	.02	.004	105
152	.03	.005	85
153	.02	.014	40
154	.03	.011	60
155	.05	.011	60
156	.03	.004	19
157	.02	.004	40
158	.02	.007	20
159	.05	.020	50
160	.05	.014	85
161	.01	.005	40
162	.02	.004	40
163	.02	.010	30
164	.05	.004	25
165	.06	.029	35
166	.05	.045	40
167	.08	.041	70
168	.07	.020	160
169	.16	.042	95
170	.11	.023	100
171	.07	.046	65

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 172	.05	.020	170
173	.03	.004	60
174	.04	.011	85
175	.03	.007	65
176	.04	.016	45
177	.05	.007	45
178	.05	.032	70
179	.05	.054	55
180	.10	.030	50
181	.05	.015	85
182	.10	.029	240
183	.22	.300	280
184	.15	.060	70
185	.13	.086	60
186	.03	.020	30
187	.07	.090	90
188	.14	.110	180
189	.12	.105	560
190	.05	.054	340
191	.06	.020	60
192	.04	.008	45
193	.01	.003	40
194	.02	.003	40
195	.03	.004	30
196	.05	.020	55
197	.04	.002	55

Sample #	Ag oz/ton	Au oz/ton	Cu ppm
77-RE - 198	.06	.002	45
199	.06	.003	14
200	.04	.007	35
201	.05	.052	20
202	.05	.060	70
203	.06	.090	280
204	.05	.036	380
205	.12	.044	50
206	.05	.009	30
207	.03	.011	55
208	.04	.011	50
209	.04	.057	35
210	.18	.390	240
211	.04	.005	40
212	.04	.012	65
213	.03	.004	45
214	.11	.255	160
215	.04	.033	130
216	.01	.005	50
217	.04	.093	80
218	.03	.004	50
219	.02	.007	70
220	.09	.061	25
221	.03	.005	50
222	.02	.077	12

Ray Broadhead (BB)

INC.
ICAL & MINERALOGICAL SERVICES · 445 WEST 2700 SOUTH · SALT LAKE CITY, UTAH 84115 · (801) 485-0711

ALYTICAL REPORT FOR:

prus Exploration Co.	Hardy Schmidt	OUR NUMBER 7942
5 So. Flower - 37th Floor		DATE April 7, 1977
s Angeles, CA 90071		CUSTOMER'S ORDER NO.

mple #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
-RE - 223	.14	.138	25	430	675
224	.07	.096	20	410	175
225	.07	.315	20	140	220
226	.04	.041	20	90	300
227	.04	.008	16	40	100
228	.06	.073	20	40	95
229	.06	.120	25	180	190
230	.03	.004	25	60	120
231	.05	.012	30	35	150
232	.05	.010	30	30	190
233	.06	.048	60	180	220
234	.06	.015	40	120	600
235	.04	.023	50	410	775
236	.06	.029	65	450	950
237	.04	.009	50	190	440
238	.03	.007	50	160	250
239	.07	.069	55	235	400
240	.04	.001	19	30	105
241	.03	.001	20	20	60
242	.03	< .001	20	20	95

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 243	.05	< .001	20	20	100
244	.05	.001	25	15	130
245	.04	< .001	25	25	110
246	.04	.110	25	15	140
247	.05	.001	30	25	160
248	.05	.001	30	20	190
249	.06	< .001	30	175	480
250	.05	.004	40	40	190
251	.13	.056	460	1200	1250*
252	.14	.017	500	575	2700
253	.16	.087	380	1700	1250
254	.06	.007	45	370	1300
255	.10	.066	50	470	880
256	.13	.075	115	1250	225
257	.04	.018	160	170	3500
258	.06	.007	520	1600	1280
259	.08	.051	140	1000	350
260	.04	.007	50	315	250
261	.04	< .001	45	125	340
262	.06	.022	90	800	650
263	.03	.043	75	310	400
264	.06	.042	55	325	420
265	.11	.033	75	330	230
266	.05	.004	55	125	425
267	.07	.047	90	340	550

* All analyses over 1000 ppm have been assayed.

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 268	.05	.023	100	325	575
269	.07	.011	200	1000	460
270	.11	.004	160	425	310
271	.08	< .001	80	240	360
272	.08	.057	75	650	270
273	.04	.008	35	210	310
274	.05	.004	150	1000	550
275	.04	.020	30	100	40
276	.05	.023	200	100	255
277	.04	.003	70	100	230
- 278	.04	.004	25	70	195
279	.02	.007	5000	25000	300
280	.09	.016	955	840	850
281	.08	.008	55	100	185
282	.05	.008	200	130	290
283	.04	.007	95	185	275
284	.07	.007	420	475	830
285	.11	.030	380	1600	1425
286	.07	.007	240	600	800
287	.15	.054	1040	1700	2400
288	.17	.020	450	1000	2050
289	.13	.048	200	1500	525
290	.19	.096	180	3750	675
291	.09	.033	400	1250	2250
292	.22	.264	280	1750	1100

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 293	.07	.036	85	440	650
294	.06	.020	140	480	975
295	.06	.023	190	750	775
296	.08	.029	160	650	750
297	.06	.026	160	210	420
298	.05	.007	60	120	225
299	.06	.022	75	300	700
300	.05	.012	80	915	1225
301	.07	.014	180	850	1350
302	.07	.026	150	650	2200
303	.17	.045	330	1850	3450
304	.10	.093	150	1200	1950
305	.06	.017	75		1500
306	.52	.189	55	200	700
307	.04	.008	85	275	680
308	.09	.023	660	150	2300
309	.25	.053	630	2750	2250
310	.19	.026	310	850	2650
311	.06	.010	170	400	1000
312	.21	.077	380	3500	725
313	.19	.174	890	2100	650
314	.07	.012	170	160	5100
315	.05	.012	85	290	550
316	.08	.020	180	1350	1800
317	.17	.011	650	240	3800

Sample #	Ag oz/ton	Au oz/ton	Cu ppm	Pb ppm	Zn ppm
77-RE - 318	.09	.039	190	800	2950
319	.04	.005	210	775	2700