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10/07/94

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: PIONEER

ALTERNATE NAMES:

NEW ENGLAND STATES GROUP  
FLORENCE-ABORIGINAL GROUP  
FLORENCE-FAGERLUND-ABORIGINAL  
ABORIGINAL GROUP  
HIGH LINE COPPER CO. PROPERTY

PINAL COUNTY MILS NUMBER: 309

LOCATION: TOWNSHIP 4 S RANGE 12 E SECTION 5 QUARTER E2  
LATITUDE: N 33DEG 06MIN 46SEC LONGITUDE: W 111DEG 08MIN 11SEC  
TOPO MAP NAME: NORTH BUTTE - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

COPPER OXIDE  
COPPER SULFIDE  
SILVER  
GOLD LODE  
IRON  
URANIUM  
THORIUM

BIBLIOGRAPHY:

ADMMR NEW ENGLAND STATES GROUP FILE  
ADMMR PIONEER MINES FILE  
ADMMR U FILE PINAL CU 51  
ADMMR FILES  
CLAIMS EXTEND INTO SEC. 4, 5 & 8

NEW ENGLAND STATES GROUP

PINAL COUNTY

ASK IN OFFICE ABOUT - DRILL HOLE SHEETS IN LARGE GREEN BOOK.

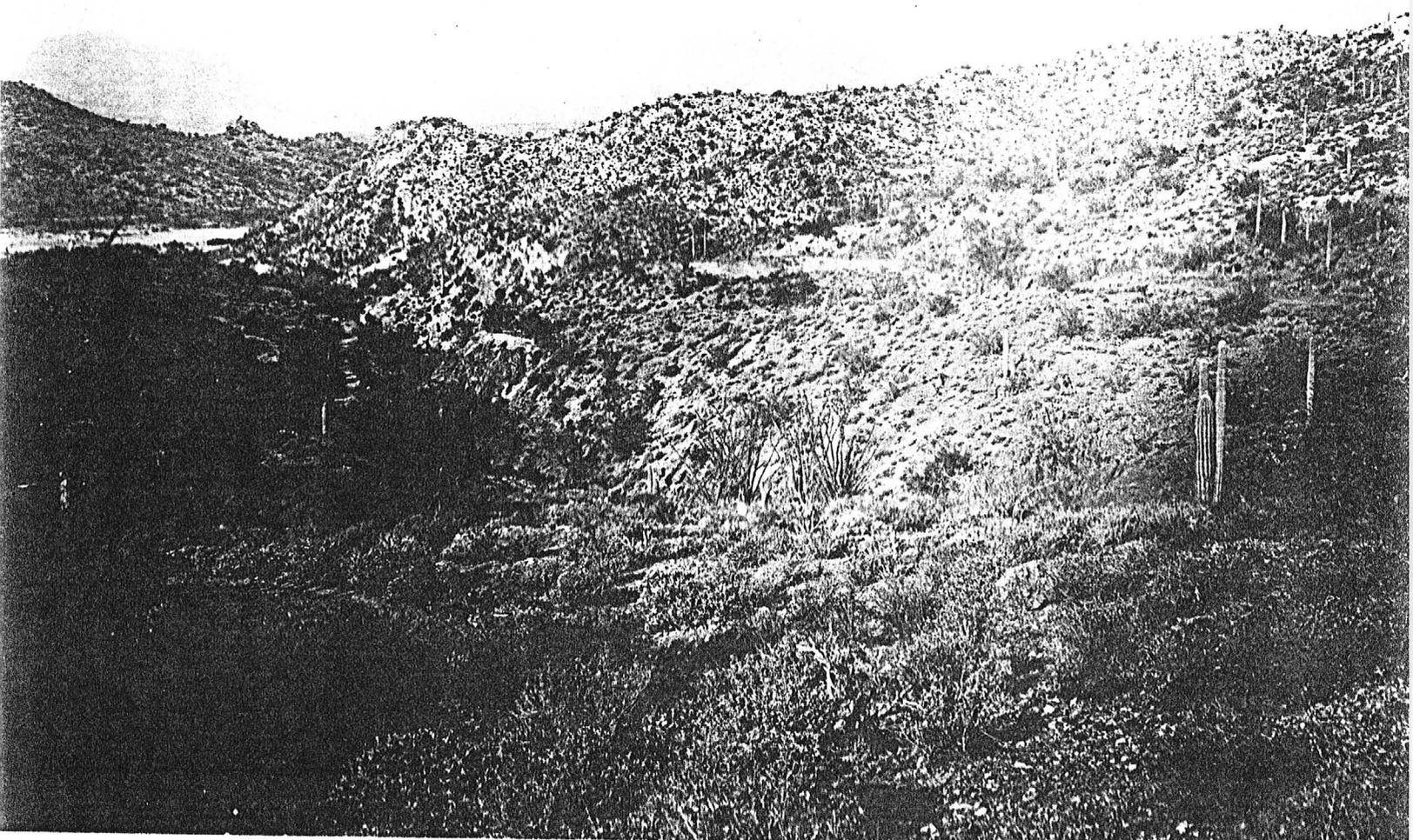
*Located in bottom drawer of Keeloff  
file.*

*W. Lyson Ashlock &  
by phone*

*1955 & 26*

THIS DATA  
MAY BE DRILL  
DATA IN FILE,  
NTN -1993

NEW ENGLAND (Group) FILE?



A-131-1

C-1921

DEPARTMENT OF MINERAL RESOURCES

State of Arizona

MINE OWNER'S REPORT

Date: Feb 20 58

1. Mine: Pioneer mines

2. Location: Sec. Twp. Range. Nearest Town. Distance.

Direction. Nearest R.R. From three claims Distance.

Road Conditions. Good

3. Mining District and County: Pinal

4. Former Name of Mine:

5. Owner: Joseph Akren Akren

Address: 2207 - 7 24th Phoenix

6. Operator:

Address:

7. Principal Minerals: Gold, Silver, Copper - Uranium, Thorium

8. Number of Claims: Lode 38 Patented Unpatented

Placer Patented Unpatented

9. Type of Surrounding Terrain:

10. Geology and Mineralization:

Mr Flagg has complete information  
Anyone interested can secure a Geological  
report from Geologist, Tyson Ashlock  
11316 Wellesly Dr. N.E. Albuquerque, N.M.

11. Dimension and Value of Ore Body:

Several hundred million

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective lessors or buyers.

12. Ore "Blocked Out" or "In Sight": 250,000 tons <sup>by sight</sup>

Ore Probable: Several million tons low grade  
are defined

13. Mine Workings—Amount and Condition:

No.	Feet	Condition
Shafts		1500' shafts & tunnels
Raises		
Tunnels		
Crosscuts		
Stopes		

14. Water Supply: 1000 ft well, ample water

15. Brief History:

16. Remarks: Want operators to mine & develop  
property, pronto



17. If Property for Sale, List Approximate Price and Terms: open

18. Signature: Joseph A. Akren

PIONEER MINES

PINAL COUNTY

New England States Group (file)

FLAGG P160 D-121 & 122

DEPARTMENT OF MINERAL RESOURCES

State of Arizona

MINE OWNER'S REPORT

Date: Feb 20 58

1. Mine: Pioneer mines

2. Location: Sec..... Twp..... Range..... Nearest Town..... Distance.....

Direction..... Nearest R.R. Pima thru claims..... Distance.....

Road Conditions: Good

3. Mining District and County: Pinal

4. Former Name of Mine:

5. Owner: Joseph Akren Akren

Address: 2207 - 24th St. Phoenix

6. Operator:

Address:

7. Principal Minerals: Gold, Silver, Copper - Uranium, Thorium

8. Number of Claims: Lode 38 Patented..... Unpatented

Placer..... Patented..... Unpatented.....

9. Type of Surrounding Terrain:

10. Geology and Mineralization:

Mr. Flagg has complete information  
Anyone interested can secure a Geological  
report from Geologist, Tyson Ashlock  
1316 Wellesly Dr. N.E. Albuquerque, N.M.

11. Dimension and Value of Ore Body:

Several hundred million

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective leasors or buyers.

12. Ore "Blocked Out" or "In Sight": 250,000 tons in sight

Ore Probable: Several million tons low grade ore defined

13. Mine Workings—Amount and Condition:

No.	Feet	Condition
Shafts.....		1500' shafts & tunnels
Raises.....		
Tunnels.....		
Crosscuts.....		
Stopes.....		

14. Water Supply: 1000 ft well, ample water

15. Brief History:

16. Remarks: Want operators to mine & develop property. Private. 

17. If Property for Sale, List Approximate Price and Terms: Open

18. Signature: Joseph A. Akren

NEW ENGLAND STATES GROUP

PINAL COUNTY  
WARD MIN. DIST.

✓  
SEE: PIONEER MINES  
(file)

PINAL COUNTY  
WARD DIST.

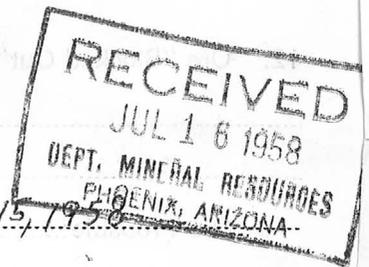
FLAGG PHOTOS D-121 + 122



131-1

C-1921

DEPARTMENT OF MINERAL RESOURCES  
State of Arizona  
MINE OWNER'S REPORT



Date: July 15, 1958

1. Mine: Pioneer Mines
2. Location: Sec. 4, 5, 9 Twp. 4.5 Range 12W Nearest Town Florence Distance 32 miles by road  
Direction East Nearest R.R. Southern Pacific Distance Adjacent to road  
Road Conditions Fair to good dirt roads
3. Mining District and County: Ward Mining District, Pinal County
4. Former Name of Mine: P
5. Owner: Joseph A. Akren, Dead May '65  
Address: 2207 N. 24th Street, Phoenix, Arizona
6. Operator: Name, Prospect  
Address: \_\_\_\_\_
7. Principal Minerals: Copper, gold, silver, uranium, Thorium
8. Number of Claims: Lode 38 Patented \_\_\_\_\_ Unpatented X  
Placer \_\_\_\_\_ Patented \_\_\_\_\_ Unpatented \_\_\_\_\_
9. Type of Surrounding Terrain: Mountainous Gila River cuts through center of property
10. Geology and Mineralization: Igneous Complex. Mineralization occurs as high grade copper in narrow diabase dikes (chalcocite), extensive malachite & azurite mineralization in the Pinal schist (also, native copper reported in old shafts), chalcocite & copper sulfide mineralization in monzonite porphyry, copper sulfide mineralization in granite & quartz dikes, & malachite in only conglomerate outcrop on property. Also copper leadings in chylite, & "iron dike". Gold & silver values associated with copper. Uranium & thorium occur in bottom of old shaft.
11. Dimension and Value of Ore Body: No ore actually blasted out, but since there are so many occurrences of copper on property, this is an excellent prospect

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective lessors or buyers.

(over)

was Application Company? (Pioneer Mines)  
6-19-59

12. Ore "Blocked Out" or "In Sight": *None. Many occurrences.*

Ore Probable: *?*

13. Mine Workings—Amount and Condition: *Shafts & Tunnels, 1500' more or less*

No.	Feet	Condition
Shafts <i>Several</i>	<i>?</i>	<i>poor to excellent</i>
Raises		
Tunnels <i>numerous</i>	<i>?</i>	<i>poor to excellent</i>
Crosscuts		
Stopes		

14. Water Supply: *Gila River flows through property. Year around water. Some of the old shafts & tunnels have water in them which could be used.*

15. Brief History: *All of the workings are old. This property was worked on a small scale years ago. Some of the tunnels were made while looking for mineralization, while other tunnels & shafts followed ore. Mr. B. H. Flagg, Phoenix, Arizona, knows much of the history of this property. There is report by him at the Bureau.*

16. Remarks: *I, as a graduate Geologist, have examined many mining properties. The Pioneer property I believe, is one of the best copper prospects I have examined in 4 years. There is a tremendous potential on this property, but it would take an extensive exploration program by a large company to determine the potential of this property.*

17. If Property for Sale, List Approximate Price and Terms: *Terms could be arranged. Reports available on request. Contact Tyson Ashlock, 1316 Wellesley Dr. NE, Albuquerque, New Mexico*

18. Signature: *Joseph A. Ashren*  
*Tyson Ashlock, Geologist*

PIONEER MINES

PINAL COUNTY

O. L. Hill, P.O. Box 517, Florence, Arizona, has the Pioneer Mine and New England States Group mines. Mr. Miller, BLM says that Texas Metallic Mines and O. L. Hill are the same. 1/1969 (Mr. Miller) BLM

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At Florence contacted Mr. O. L. Hill, 1802 Willow St., who is the purported owner of the Pioneer copper prospect near Cochran. He said Bell Western Corp., 200 Fillmore St., Denver, Colorado, recently completed drilling several 100 ft. holes and that Heinrichs of Tucson were evaluating the results. GW WR 5/29/70

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O. L. Hill of Florence reports that the Bell-Western Co. of Denver, Colorado, has drilled several 100 foot holes on the Pioneer copper claims at Cochran and are presently drilling on the Alvarez and adjoining copper properties south of Price. GW Quarterly Report 7/1/70

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REPORT ON

FLORENCE FAGERLUND AND ABORIGINAL  
GROUPS, COCHRAN, PINAL COUNTY, ARIZONA.

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The Florence, Fagerlund and Aboriginal groups, consisting of twenty-six lode claims and two fractions, are located in the Ward Mining District, Pinal County, State of Arizona. Cochran (See Plate I) a station on the Arizona Eastern R.R., sixty-eight miles east of Phoenix, is on the Aboriginal claim, on ground set apart for station uses by the original locator. The Gila River divides the property, five claims lying on the south side of the river.

The property is in a very rugged mountainous country. The elevation is 1650 feet above sea level where the railway crosses it. On both sides of the river the land rises rapidly, the highest points along the northern limits of the property being about a thousand feet higher though less than a mile back from the river. The climate is that which is common to mountainous districts of moderate elevation in the southwest.

As stated above, the property is crossed by the Arizona Eastern R.R., being sixty-eight miles from Phoenix. It is twenty-nine miles to Hayden where the Ray Consolidated Copper Company's concentrator and the Hayden plant of the American Smelting and Refining Company are located. The railway provides daily passenger, express and freight service. The freight rate on ores to the Hayden Smelter is \$1.38 on ores valued at \$50 or over.

The property can be reached by automobile from Phoenix by Superior and Copper Buttes, though the road from Copper Buttes to Cochran would require some repair before it could be used for heavy hauling. The distance is about eighty miles. The old road connecting Cochran with the Globe to Florence highway is also out of repair but can be put into shape with little expense. The distance to Phoenix by this route would be perhaps ten miles less than by the Superior road.

At present the post office is at Price, a few miles west.

The following claims constitute the groups under consideration:

The Florence Group: Last Chance, Copper Ranch, Copper Farm, Alabama, Copper Glance, New Possession, Vesta Fraction, Isabelle, Mack-Harve, Harve-Mack and Ingobar;

Fagerlund Group: Kalamazoo, Progress, Oversight, Homestake, Contributor, Socialist, Pickup, Longtime, Sunflower, Gila, Gila Fraction, Maryland and Bivalve;

Aboriginal Group: Aboriginal, Rock of Ages, Paradox No. 1, Paradox No. 2 and Paradox No. 3.

These claims are all held by right of location and the notices are duly recorded in the office of the County Recorder at Florence. The annual labor requirements have been complied with in accordance with the law. There are no mortgages or other incumbrances on the property.

In the immediate vicinity there are no large producing mines. The old Silver Belle, famous as a silver mine some thirty years ago, is directly north. The Ray Copper Camp is a little north of east, about seven miles distant. About five miles north-east, in the direction of Ray, the Arizona Hercules interests are shipping at the rate of two hundred tons daily from the Copper Buttes mine. Adjoining property on the east, formerly known as the Copper Peak, from which some shipments have been made recently, has been taken over by the same interests. Other developing properties are in the neighborhood but there are none operating on a large scale.

With the exception of a few shipments of hand sorted ore, the property has no record of production. The last shipment was made in September, 1915. It had a gross weight of 9460 pounds. The smelter sheet showed that it carried .07 oz. gold, 3.10 oz. silver and 18.90% copper besides 16% iron and 32% insoluble.

Roughly the property is bounded on the west by the towering, cliff-like ridge of rhyolite running north from the river and forming the most conspicuous topographic features of the whole district. Half way across the property, east of the present camp-site, there is a wide rhyolite porphyry dike with a northwest-southeast trend which forms a bold point rising steeply from the river. Farther eastward the country is less broken for a distance of several miles. Northward from the river the ground rises rapidly, terminating in the thick, almost horizontal rhyolite capping along the northern limits of the property. To the east, beginning on the eastern end of the Alabama and Harve-Mack claims, there is a large area, more or less level, sloping towards the river and bounded on the east by Walnut Grove Canyon. Only a portion of this area is included in these groups. The intervening, rough surfaced and highly red stained ground is characteristic of altered Pinal schist areas. Everywhere there is evidence of extensive movement, some of which has produced intense brecciation. In other areas there is a considerable shearing and mashing of the schist. There are two major faults, one running north and south, the other east and west. The lesser faults, which are rather numerous, probably have a direct bearing on the structure and position of the ore bodies.

A generalized columnar section of the district about Ray, taken from Professional Paper 98 K, U.S.G.S., by Ransome, is given in Plate III. Within the area covered by the groups under consideration the sedimentaries are entirely lacking.

The oldest rocks, the Pinal schist and the intrusive batholithic masses of granite, are the characteristic types of these two formations as they exist in many portions of the state. The schist belt occurs in the central and northern part of the property, while the granite is the prevailing rock mass south and east. A rhyolite capping (see Plate II F-F) covers the greater part of the property. It varies in thickness from a few feet to four hundred feet, as shown by drill hole No. 8. So far as is known the rhyolite everywhere overlies a schist breccia, composed chiefly of small, sub-angular fragments

of schist and a cementing material of finer particles of schist. The schist breccia shows no copper stains except in rare instances along prominent fractures where the copper may be considered as having been precipitated from surface waters or in certain instances along contacts between the breccia and less porous intrusives. Here, also, it is probable that the copper minerals were precipitated by surface waters.

Traversing the property in a general north-south direction is a wide dike of dacite forming some of the most distinctive topographic features of the area. Bold outcrops of this dike occur in the bed of Gila River. The rock is light gray, having a fine grained ground-mass through/which small phenocrysts of quartz, feldspar and biotite are evenly distributed.

Besides the intrusive bodies mentioned above there are irregular sheets and masses of diabase, and bodies of porphyritic to granular rocks of variable character ranging from quartz monzonite to grano-diorites. Some exposures bear a strong resemblance to the quartz-monzonite porphyry at Ray. It is believed that these last named intrusives, roughly grouped as "porphyries" bear an important relation to the ore bodies of this area. In fact it is believed that the belt of porphyry running from the northeast to the southwest varying in width from fifty to one hundred feet (See Plate II A-A B-B) through the center of the property will develop large ore bodies of commercial grade.

The unaltered schist on the north, without the bounds of the property is a slaty, sericitic, fine-grained fissile rock of a light bluish gray color. In the center of the area more coarsely crystalline varieties occur, rich in silica and mineralized in varying degree by iron and copper minerals. In zones of shearing and crushing silicification and sericitization may be almost wholly lacking or very much in evidence. In general the alteration of the schist has the prominent features characteristic of metasomic action.

On the south side of the river there are not so many extensive natural exposures of schist. From such exposures as there are there seems to be very little variation in the character. In the main it is a light gray with a satiny sheen, fine grained and moderately fissile. There is a tendency to break along fracture lines, roughly perpendicular to the schistosity. Mineralization is in the form of small, evenly disseminated grains of chalcocite and varying amounts of copper carbonates along the fracture planes just mentioned. The schist here bears a strong resemblance to certain of the commercial ores in the Ray Consolidated property at Ray.

Crossing the Gila claim, and traceable westward (See Plate II H-H) on the surface as far as the main belt of porphyries, at a point near the tunnel on the Copper Farm, is a quartz vein varying from two to twenty-five feet in width. In the main the quartz is dense, white and hard, sparingly mineralized at the surface. Very little development has been done on this vein which has a strike of N 60 W and a dip of 70 degrees south. On the south side of the river, crossing the paradox No. 3 claim, is a similar quartz vein of large proportions which appears to be well mineralized in places. No extensive development work has been done on this vein.

On the Copper Farm claim, southwest of the No. 1 drill hole, is a tunnel (See Plate II #21) approximately ninety feet long, driven in a northwesterly direction through schist. The schist appears to have been uniformly mineralized with cuperiferous pyrite, chalcopyrite and some chalcocite. The walls of the tunnel are covered with a beautiful efflorescence of copper and iron sulphate. About twenty feet from the face a short drift is run to the south on a well mineralized porphyry. Such ore as can be obtained from this drift is very promising. The schist through which this tunnel runs is a part of the belt believed to be of such extensive mineralization as to prove to be ore.

Northwest of the Copper Farm tunnel is the Kalamazoo tunnel (See Plate II #22). This has less depth than the Copper Farm tunnel and develops little that is of value in the study of the property.

Northeast of the Copper Farm tunnel is the Copper Farm shaft (See Plate II #25) sunk to a depth of eighty-five feet. At the outset this showed good copper values in the schist. So far as is known little else of interest was developed in this shaft, though at greater depth it might have given some valuable information regarding the east belt of porphyry.

The Gila shaft (See Plate II #27) sunk to a depth of eighty feet near the side line of the Gila claim has opened up nothing of importance except some bunches of sulphide ore near the bottom, carrying almost equal amounts of pyrite, chalcopyrite and galena with a little sphalerite in a hard quartz gangue. This single compartment shaft is sunk along the strong quartz lead (See Plate II H-H) mentioned above. It is a dry shaft.

In about the center of the Copper Glance claim is an inclined shaft, dipping north about fifty degrees (See Plate II #26) sunk in the schist on a well defined fracture line having an east-west strike. This fracture zone, varying in thickness from a few inches to three feet or more, is well mineralized with copper carbonates and silicates with now and then considerable quantities of glance. The occurrence is but a few feet south of the rhyolite capping under which it dips and with which it appears to run parallel. Some selected ore from this shaft shipped in 1915 carries 18.90% copper.

The most interesting, if not the most important work at present is the Alabama tunnel (See Plate II # 29) and the winze which is being sunk therefrom at a point forty-three feet from the entrance. The tunnel continues beyond the winze for a distance of about sixty-eight feet. Practically all of this tunnel has been driven within the last six months.

Starting with the fifteen feet of open cut, making the approach to the tunnel, the entire section disclosed is that of ground well suited to mineralization. The walls of the open cut show a yellowish-buff, fine grained, sugary material, which is clearly the leached and bleached residue of a quartz-porphyry.

Owing to the disturbed condition and lack of extensive development it is difficult to make any generalization regarding the dip and strike of the schist. It appears probable that the normal strike of the schist is about N 55 W, while its dip is nearly vertical, inclining to the north, if at all.

In addition to the development described hereafter, there are many openings of lesser importance. Some of them disclose features of importance but for the most part they may be ignored as of no value in the future operation of the property.

On the south side of the river the most important workings are the 80 foot shaft and 80 foot tunnel on the Aboriginal claim. The tunnel driven east from the Cochran wash into the schist exposes nothing of any great importance. In the shaft (see Plate II 11) at a point 40 feet from the surface a body of secondarily enriched schist was encountered. After passing through ten feet of this schist it dipped north-east and out of the shaft. A careful sampling of this body indicates a copper content of 1.10 %.

The deepest work on the property is what is known as the New Possession shaft, a two compartment shaft, two hundred and ten feet deep, about three hundred yards north-east of the camp house. (See Plate II 16) This was sunk in an effort to locate bodies of high grade shipping ore. At approximately one hundred feet down from the collar of the shaft rhyolite was encountered. This was forty feet thick. Below the rhyolite the shaft passed into schist which was more or less mineralized. From the one hundred foot level a drift was run to the southeast about ninety feet to intercept a diabase dike (See Plate II E-E) which is opened up in the tunnel south of the shaft. On and near the contact, in both schist and diabase, varying amounts of native copper were found. Had this drift been continued a short distance further it might have opened up some ore of shipping grade on the contact of the schist and rhyolite. From the two hundred foot level no lateral work was done. At present writing the shaft is filled with water to within a few feet of the surface. In sinking none was encountered below the one hundred foot level.

Near the New Possession shaft, to the south, is a tunnel (See Plate II #17) driven along the diabase dike. It attains so little depth in the face that it is of little or no value. Northwest of the shaft is another tunnel (See Plate II #15), in the schist breccia which shows but little of interest.

About six hundred feet southeast of the New Possession shaft, close to the river on the Copper Ranch claim, a long tunnel, approximately two hundred and fifty feet, (See Plate II #19) was driven northward into the schist. The high water of January, 1916, completely filled the tunnel, and the fifty foot winze which had been sunk from the tunnel. In the immediate vicinity of the tunnel entrance the schist shows strong evidence of having been mineralized to a considerable extent, and it is reported that the showing throughout the entire length of the tunnel was very encouraging.

The only indication of former mineralization is found in the narrow reticulated seams of iron oxide. There is little change in the first fifteen feet of the tunnel except that the ground grows firmer. Beginning at a point about fifteen feet in the tunnel follows a fracture in the porphyry having a strike N 40 E. Along this fracture there is a thin but persistent streak of copper carbonates. The character of the ground changes from this point; it becomes firmer and changes in color to a light gray. The rock appears to be more siliceous, while a few quartz lenses are noted. The iron stained seams are less frequent though much more pronounced.

Forty feet beyond where the tunnel began to follow the N 40 E fracture, a cross fracture, having a strike N 35 W and a dip to the north varying from forty-five to seventy degrees appeared. The first indication of this cross fracture was the cutting of an eight inch streak of high grade ore, chiefly carbonates and glance which assays 23 to 37 % copper. The next seven feet shows porphyry only sparingly mineralized with pyrite and chalcopyrite with some carbonates. This is followed by ten feet of well mineralized porphyry, fine grained, light greenish gray and highly siliceous. The mineralization, consisting of pyrite, chalcopyrite and rare chalcocite, occurs in thin, persistent seams conforming, in general, to the dip of the cross fracture. Beyond this ten-foot streak there is a twenty-foot strip of granitic porphyry, coarse grained, and for the first three feet highly stained by iron oxides.

On the hanging wall side of the ten-foot zone of well mineralized ground just mentioned, an inclined winze has been sunk twenty feet. For a distance of two feet west from the supposed hanging wall there are numerous parallel seams of pyrite and chalcopyrite not over one inch in thickness, separated by siliceous vein matter in which the same minerals are irregularly disseminated. A sample across this two feet at a depth of ten feet assayed 1.40 oz silver, .01 oz gold and 3.12 % copper. West of these two feet the ground is like the material between the pyrite veinlets. The assay across the bottom of the winze (six feet wide) at a depth of ten feet, returned on the north side .70 oz silver, .03 oz gold and 2.47 % copper; on the south side, .60 oz silver, .02 oz gold and 1.69 % copper. At a depth of twenty feet from the collar of the winze a sample across five feet next the floor assayed .60 oz silver, .02 oz gold and 3.15 % copper. The winze makes only a small amount of water at present. The water is so highly charged with copper that an ordinary shovel blade, if left standing in it twelve hours, will precipitate about an ounce of copper.

Close to the Alabama tunnel are two old shafts (See Plate II #28 #30) both of which have produced some ore in the past. While of interest earlier their importance is now overshadowed by the results obtained in the more recent development through the tunnel.

At the present writing the official drill logs for the eight holes drilled on the property are lacking. The following information, obtained from one of the drillers who worked on the holes is believed to be accurate and reliable so far as it goes.

No. 1 - Over 400 feet deep; through schist for 30 feet, then 40 feet diabase. Brecciated schist rest of way; all showing some copper.

No. 2 - Total depth 450 feet; schist all the way. From 200-300 feet copper stains; chalcopyrite 300 feet to bottom.

No. 3 - Total depth 500 feet; schist all the way. Beginning at 300 feet copper assays 1% for 75 feet.

No. 4 - Total depth 415 feet; schist all the way. Ore began at 150 feet extending to rhyolite at 415 feet; rhyolite showed low copper.

No. 5 - Total depth 500 feet; schist all the way. Showing good ore at the bottom when tools were lost.

No. 6 - Over 600 feet shows ore all the way.

No. 7 - Total depth 665 feet. Hole lost at this point. In good ore. Ore began at 180 feet. Total of 400 feet ore (1%) with 300 feet showing native copper. About 265 feet showing two per cent copper.

No. 8 - Total depth 1065 feet. First 400 feet in rhyolite capping, followed by 200 feet schist breccia. From 600 feet to 1000 feet oxidized iron and some copper. Fair assays from bottom of hole.

The location of the drill holes is shown on Plate II, Nos. 1 to 8. The No. 8 hole was the last hole drilled and was ended when funds were exhausted.

The following are the assay results on samples taken for this report by the writer:

No. 1 - Across two feet ore north side of Alabama winze at a depth of ten feet - .70 oz silver, .03 oz gold, 1.69 copper.

No. 2 - Across 44 inches west of sample No. 1, Alabama tunnel depth of ten feet - .60 oz silver, Tr. gold, 2.47 copper.

No. 3 - Across two feet south side Alabama winze, depth of ten feet, the same streak as No. 1 sample - 1.40 oz silver, .01 oz gold, 3.12 % copper.

No. 4 - All around Alabama winze at depth of ten feet about ten inches off the floor - .80 oz silver, .02 oz gold, 2.26 % copper.

No. 5 - Duplicate of No. 4 about one foot higher - .60 oz silver, .02 oz gold, 1.80 copper.

No. 6 - Sample of dump, winze material at 10 feet - .70 oz silver, .03 oz gold, 1.80 % copper.

No. 7 - High grade from half of #6 - 3.10 oz silver, .02 oz gold, 4.31 copper.

No. 8 - High grade carbonate streak west of Alabama winze, eight inches - 5.15 oz silver, .03 oz gold, 37.00 % copper.

No. 9 - Around Alabama winze depth 20 feet - 3.15 % copper.

No. 10 - Across ten feet Alabama tunnel on side east of winze station, marked in tunnel - 2.11 % copper.

No. 11 - Five feet porphyry in Copper Farm tunnel - .78 % copper.

In laying out the future exploratory work two principal lines of development are suggested by the conditions - the sinking of prospect shafts, and some form of drilling. It would seem advisable to select a point east of the Alabama tunnel from which a shaft might be sunk to explore the porphyry belt at this end. The first lateral work should be done at not less than 200 feet from the surface. The nature and direction of this work will of course depend upon the data gathered during sinking operations. While this work is in progress the porphyry might be further explored in the vicinity of the Copper Farm tunnel, first by continuing that tunnel and later by sinking. The southern end of the porphyry belt can be explored just south of the railway on the northeast slope of the ridge directly across the river from the present camp.

Additional development through the New Possession shaft can also be recommended. The only work above the two hundred foot level that can be considered justifiable is the continuation of the southeast drift to the schist-rhyolite contact as exposed east of the diabase dike. This shaft should be deepened and some lateral development done below the two hundred level.

It is also recommended that some diamond drilling be done. Churn drilling might produce some valuable results at less cost though of necessity limited to vertical hole work. The proving up of the schist belt between the porphyries might be done wholly by churn drilling, though it is probable that the exploratory work proposed for the Alabama shaft will give some valuable data on the schist.

A careful study of the property leads to the belief that well directed exploratory work will prove up a large tonnage of commercial grade copper ore. The surface indications, together with such data as is obtainable from the development work done to date clearly indicate that the property is one of considerable merit, justifying a considerable expenditure for its exploration and development. The acquisition of the property is strongly recommended.

Respectfully submitted,

ARTHUR LEONARD FLAGG.

Ray, Arizona,  
May 1, 1917.

LOCATION AND ACREAGE:

The group of mining claims, locally known as the Florence Aboriginal Copper Mine, 23 in number and embracing an acreage of approximately 460 acres, are situated in the central western part of Pinal County, Arizona, approximately eight miles west from the Ray Consolidated Copper Mine.

Cochran Station, on the Arizona & Eastern R. R., is situated on the property, the railroad cutting across the same. The Gila River also runs across the property.

TITLE AND OWNERSHIP:

The property located some years ago is still retained by the original prospectors and miners. Their title being clear in every respect.

GEOLOGY:

The mineralized area is identical with that of the so-called "Copper Porphyries", the rocks being altered silicified Schists and Porphyries - copper bearing. Two strong diabase dykes cut through the property, one being the line of contact on the south side between the granite and the schist. This entire section was at one time capped with conglomerate and Rhyolite. The conglomerate is still quite extensive, but the Rhyolite on this immediate property has nearly all eroded and disappeared. The surface and shallow surface workings show copper in the form of light carbonate.

and oxides only (no primary pyrite). Thus proving intense leaching of copper and that a redeposition of copper has occurred forming the secondary disseminated ore, chalcocite. The contour of the country in general is very similar to that of the Ray and Miami districts.

DEVELOPMENT, ETC:

The present workings consist of 8 shown drill holes, numerous shallow shafts and three tunnels. With one exception, the shafts and tunnels are all too shallow to disclose any possible ore. The one exception is shown on the assay plat.

Hole No. 1. Had no chance from the start, reference to the plat shows it cut through the schist in 35 feet in granite, was too close to the contact. The structure as shown on the plat is plainly exposed.

Hole No. 2. 6 and 7, must have cut close to an ore body.

Hole No. 3. Had but a slight chance, having been sunk in the only disclosed spot on the property which has an excess of iron.

Hole No. 4. Is too far north to be in line with the strike of possible ore.

Hole No. 5. Is an unfinished hole.

Hole No. 8. Was drilled at a much higher altitude, a long ways to the north from any of the others. The surface being heavily capped with Rhyolite and conglomerate.

A close study of the property discloses that none of the drill holes were sunk in the best possible areas. These possible areas, the same being shown upon the accompanying map, are namely:

(A) Where the present new workings have proven an existing "ore body". This area can be followed on the surface clear across the property crossing the river to the east from Cochran Station.

(B) The large area northeast and on opposite side from Cochran Station, has from surface indications and as disclosed by shallow workings, almost given positive assurance that commercial ore can be developed.

(C) The other possible area lies to the north from Hole No. 7. Of the 460 acres there is better than 200 acres of undeveloped possible ground.

In conclusion I can with reasonable assurance state that the property is well worthy of further development. The disseminated ore now developed in the Alabama claim gives positive assurance that a large ore body exists in this locality.

By the usual method in computing "Ore tonnage" the present development gives the property 125,000 tons of ore with a copper value of practically 2%.

The character of the ore is identical with that mined in Miami and Ray.

Should the property develop into a mine, it has every advantage for economic mining, with plenty of room, water and rail now there.

The very large acreage of possible and probable area holds possibilities of another "Porphyry Copper".

Respectfully submitted,

T. J. SPARKES.

5.

Annexed is an Engineering Report made by Arthur L. Flagg, E. M., upon the property above described and now belonging to said High Line Copper Company, a corporation.

REPORT  
ON  
FLORENCE FAGERLUND AND ABORIGINAL GROUPS.  
COCHRAN PINAL COUNTY ARIZONA.

The Florence, Fagerlund and Aboriginal groups, consisting of twenty-six lode claims and two fractions, are located in the Ward Mining District, Pinal County, State of Arizona. Cochran, a station on the Arizona Eastern railway, sixty-eight miles from Phoenix, is on the Aboriginal claim. The Gila River divides the property, five claims lying on the south side of the river.

The property is in a very rough, mountainous country. The elevation is 1650 feet above sea level where the railway crosses the property. On both sides of the river the land rises rapidly, the highest point along the northern limits of the property being about a thousand feet higher though less than a mile back from the river. The climate is that which is common to mountainous districts of moderate elevation in the southwest.

It is twenty-nine miles to Hayden where the Ray Consolidated Copper Company's concentrator and the Hayden plant of the American Smelting and Refining Company are located. The railway provides daily passenger, express and freight service. At present the postoffice is Price, a few miles west.

The central part of Arizona, where this group is located, has been a prominent mining district for many years, first because of the rich silver ores, later on account of its copper mines. The old Silver King, famous as a silver producer some thirty years ago, is directly north. The Ray copper camp is a little north of east, about seven miles distant. Five miles north-east in the direction of Ray is the Copper Butte mine which has been a large producer. During 1916-17 the production exceeded six hundred tons of shipping ore daily.

In the area under consideration the oldest rocks, the Pinal schist and the intrusive batholithic masses of granite, are the characteristic types of these two formations as they exist in many portions of the State. The schist belt occurs in the central and northern part of the property, while granite is the prevailing rock south and east. A rhyolite capping covers parts of the property. This capping varies in thickness from a few feet to four hundred feet in thickness. So far as is known the rhyolite everywhere overlies a schist breccia, composed of small, sub-angular fragments of schist and a cementing material. The schist breccia shows no copper stains except in rare instances along prominent fractures where the copper may be considered as having been precipitated by surface waters, or in certain instances along contacts between the breccia and less porous intrusives. Here also, it is probable that copper minerals were precipitated by surface waters.

*diorite* Traversing the property in a general north-south direction is a wide dike of diabase, forming some of the most distinctive topographic features of the area. Bold outcrops of this dike occur in the bed of the Gila river. The rock is light gray, having a fine grained groundmass, through which phenocrysts of quartz, feldspar and biotite are evenly distributed.

Besides the intrusives mentioned above there are irregular sheets and masses of diabase and bodies of porphyritic to granular rocks of variable character ranging from quartz-monzonite to grano-diorite. Some exposures bear a strong resemblance to the quartz-monzonite at Ray. It is believed that these last named intrusives, roughly grouped as porphyries, bear an important relation to the ore deposits of the area. In fact it is believed that the belt of porphyry running from the northeast to the southwest, varying in width from fifty to one hundred feet, through the center of the property, will develop the largest bodies of commercial ore on the property.

NEW ENGLAND STATE GROUP

The development work on the property consists of (A) about 5000 feet of churn drilling and (B) 1500 feet of shafts and tunnels.

The churn drilling was all done in an area roughly 1000 feet square. This area shows on the surface conspicuously red stained schist, in places leached to a light yellow color. The results of the drilling indicate copper values over this area averaging 0.763% copper. In view of the system followed in placing the drill holes they can hardly be considered conclusive evidence in determining the value of even the schist. A study of the ground indicates that the drilling operations did not reach the porphyry belt which is believed to be the mineralized area of greatest importance. Because the porphyry dips north the most southerly holes passed through only the oxidized portions of the belt, while the most northerly holes were not carried deep enough to reach it.

The deepest shaft is 210-ft deep. This was bottomed in schist, well mineralized and carrying 1.28% copper. The rest of the work consists of numerous shafts and tunnels many of which supply interesting and valuable data concerning the future of the property. The only work deserving of special mention is the Alabama tunnel and the 75-ft winze sunk therefrom.

For a little over forty feet the Alabama adit is driven through the leached and bleached residue of what was a well mineralized quartz-porphyry. As the adit gains depth the ground becomes firmer and less altered. Just before the winze is reached a cross fracture, eight inches wide, was cut. This assayed 35% copper. Beyond this streak a ten foot zone, exceptionally well mineralized, assays 2.11% copper. On the hanging wall side of this ten foot streak a winze was sunk seventy-five feet. The winze is bottomed in a light gray, silicified rock carrying chalcopyrite, chalcocite, native copper and some pyrite. Samples around the four sides of the winze at five foot intervals gave the following results: (1) 2.47%; (2) 3.12%; (3) 1.99%; (4) 1.66%; (5) 2.12%; (6) 1.42%; (7) 1.99%; (8) 0.95%; (9) 1.54%; (10) 1.85%; (11) 1.08%; (12) 1.15%; (13) 2.00%; a composite of the rejects from the above samples assayed .70 oz silver and .03 oz gold.

Samples in the adit beyond the winze taken at intervals of five feet assayed as follows: (1) 2.11%; (2) 1.25%; (3) 1.16%; (4) 2.13%; (5) 0.12%; (6) 0.12% copper.

At the extreme eastern end of the property some very high grade copper ore was opened up in April 1921. This ore consists of cuprite (copper oxide) and native copper, accompanied by high silver values. The ore occurs next to the south porphyry. The ground from this point northward to the north porphyry appears to have been well mineralized. The full extent of this mineralized area as yet has not been definitely proven but it is known to be over one hundred feet.

The Alabama claim is the logical place for the initial deep prospecting. The ore zone which seems to be the longest, widest and most likely to produce the largest tonnage of ore can be most advantageously developed by a shaft not far from the Alabama tunnel. Because of the great length of this one zone more than one shaft will be required for developing it. The first work, however, should be done at the point where the conditions are best understood. The site selected for the first shaft is such that if any shipping ore is developed in sinking it can be delivered to the railway in an aerial tramway and loaded direct onto the cars. For this reason ore can be put into the smelter for less than it is costing some mining companies to place their ores aboard the cars.

The ore zone on which the Alabama tunnel is driven has been prospected for fully a mile along the strike. Over this distance the width varies from fifty to over one hundred feet. Though leached at the surface, this zone, wherever opened up, is well mineralized. In every instance where work has been carried deep enough to encounter primary ores they have been found to be of good grade. The earlier prospecting has shown clearly the area within which ore bodies should occur. The more recent work has demonstrated that still deeper work will probably open up large bodies of commercial grade ore. After a thorough study of conditions, checked by sampling, the only conclusion to be drawn is that the property is one of merit which may become a profitable producer of copper.

Respectfully submitted,

Kelvin, Arizona,  
May 5th, 1921.

*A. L. Slagg*

## NEW ENGLAND STATES GROUP.

The following data were taken from some incomplete notes made during the time drilling operations were in progress. At that time the property was known as the Florence-Fagerlund and Aboriginal Group. The owners, at the time, were Lou A. Jones, Jake Fagerlund, Frank Harvey and M.H. Byrick, all living in Arizona, and Con McCormick living in California.

Drilling was done in 1913. The enterprise was headed by L.A. Dunham, who had done considerable exploratory drilling in the Ray area previously.

What point was selected as datum is unknown but the reference to the collars of each hole as being so far above datum gives an idea of the depths reached. No notes are available for the No. 1 hole.

No. 2 HOLE: 130-ft above datum. The first 30-ft were in conglomerate. Water was encountered at 150-ft. First sulphides at 280-ft; little carbonate above this point. Sulphides for the next 85-ft averaged 0.763% copper. At 370-ft primary sulphides were encountered and copper values decreased. Hole bottomed at 485-ft.

No. 3 HOLE: 110-ft above datum. Started in heavy iron cap but went into very much altered schist above water which was struck at ~~130~~ ft. Leached zone ended at 265-ft. From 265 to 355 ft chalcocite and pyrite averaging <sup>1.00</sup> 0.20% copper. Primary sulphides began at 355-ft. Hole bottomed at 370-ft.

No. 4 HOLE: 150-ft above datum. Started in silicified schist; leached. Water at 140-ft. Leached zone ended at 175-ft. Secondary sulphides to 300-ft, showing chalcocite and pyrite, averaging 0.20% copper. Primary sulphides at 300-ft. Hole bottomed at 330-ft. It is believed that this hole bottomed in rhyolite.

No. 5 HOLE: 220-ft above datum. In altered silicified schist to water at 160-ft. Leached zone continued to 385-ft. Secondary sulphide zone showed chalcocite and a small amount of pyrite, average of 0.12% copper. Hole lost at 545-ft.

No. 6 HOLE: 250-ft above datum. Through rhyolite capping 150-ft to water. In leached zone to 495-ft. Next 155-ft showed secondary chalcocite, average around 0.25% copper. The last 75-ft of this 155-ft showed a considerable amount of duprite. Hole bottomed at 640-ft but believed to have possibilities below.

No. 7 HOLE: 300-ft above datum. Started in silicified schist. 0.06% copper at 125-ft. From this point to 265-ft copper averaged 0.37% copper. From 265-ft to 390-ft copper averaged 0.19% copper, considered a semi-leached zone. Secondary sulphides began at 560-ft and for 100-ft averages 0.363% copper. Hole caved at 665-ft and lost. Thought to have good possibilities at greater depth.

No. 8 HOLE: 500-ft above datum. Through rhyolite capping 296-ft to conglomerate which lasted 65-ft. Silicified schist to 540-ft. Native copper came in at 540-ft and persisted to 970-ft then chalcocite appeared. From 970-ft copper values did not go above 0.18%. Hole bottomed at 1060-ft.

The original group of 27 claims was re-surveyed in 1924 by A.L. Flagg and the number reduced to 14 claims and three mill-sites which covered more area than the original group. Identification of the corners of the re-surveyed group should be found on stamped metal tags, in a small aluminum capsule, at the very base of each monument.

The Florence Group of Claims.

Location and Accessibility.

The Florence group of claims are located in the <sup>ward</sup> Buttes Mining District, Pinal Co, Arizona, 18 miles east of the town of Florence. The Phoenix & Eastern Ry, a branch of the Southern Pacific R.R. runs within a few hundred feet of the property and has a side track about 600 feet from the west end of the property. This sidetrack is called Cochran. The Railroad is on the south side, and the Florence group of claims on the north side of the Gila River. This stream is fordable during the greater portion of the year.

Acreage

The group is composed of five full claims, 1500 ft by 600 ft, known as the Last Chance, Copper Farm, Copper Ranch, Copper Glance and Alabama, the New Possession, which slightly overlaps on the Copper-Farm claim; and the Protectionist, which is a fraction claim. Total Acreage is about 123 acres. These claims are not patented, but are held in the usual way, by discovery and annual assessment work. The law with respect to assessment work has always been fully complied with and the assessment work recorded.

There has been more than enough work done on this group to obtain patent.

Geology.

Outcrop

The outcrop consists of hematite iron with small bunches of carbonate of copper showing up in it here and there. Where there is no hematite iron, the outcrop consists of a leached, decomposed zone which plainly marks the trend of the fracture.

This mineralized fracture is a sheared zone varying from 50 ft. to 250 ft. in width. The rock in which this sheared zone is found on these claims is a diorite. It would appear as though the main fracture is capped in places by hematite still containing here and there low-

percentages of copper. The copper is not always in the form of a carbonate, for samples of the iron without carbonate stains have given as high as 3 % copper. In such cases the copper no doubt is present in the form of cuprite. The ground on, and adjacent to, the claims of this group is composed of rhyolite, rhyolitic tuff, diorite, granite and diabase named in the order of volume as viewed superficially.

The order of formation may be given as granite, diorite, diabase, rhyolite and rhyolite tuff; for we find granite intruded by rhyolite, diorite apparently intruded by diabase, and rhyolite cutting through granite, diorite, and diabase, while rhyolite tuff covers the rhyolite where erosion has not yet removed it.

It is quite evident that the sheared zone in the diorite existed and was mineralized and then leached of its copper contents before the arrival of the rhyolite.

Of course the cutting of this sheared zone by the rhyolite dykes at nearly right angles to the strike, or trend, of the zone further buckled and crushed said zone giving in places a schistose character to the rock.

We find copper glance in the fracture plains of the diorite and here and there in the rhyolite. This would seem to indicate that mineralization followed the arrival of the rhyolite leading one to the conclusion that the ground under consideration had two separate ore making periods- The first no doubt consisting of iron pyrites and calco-pyrites and the second consisting of copper glance.

It is to be understood that the iron capping does not exist along the strike of this zone for the full length of the property, nor does the copper glance streaks on the surface continue for long lengths, but appear at intervals as if indicating ore shoots.

The iron capping has its largest development near shaft " A ".

At shaft " B " the full width of the capping has not been determined but contains more carbonate of copper than at any other point on the property, and besides the general appearance of the ground would indicate that at no great depth an ore body should be encountered.

Results of Development.

This refers only to the ground as exposed as the result of work done at shafts "A" and "B".

Shaft "A" was located approximately in the middle of the zone on the new possession claim.

This shaft is 200 ft. deep. At 120 ft. the ground was opened up the crosscuts running approximately north and south, the north cross cut was driven about 65 ft. About 40 ft. of this was driven through a rhyolite intrusion which had no outcrop on the surface. The balance of the crosscut was in broken up diorite, the divisional planes of the rock were filled with hematite that had been leached from higher ground. This crosscut was not sufficiently extended to get under the iron capping showing on the surface.

The south crosscut was driven some 110 ft. From the station and extending about 40 ft. the ground is badly broken up showing some low grade ore here and there. At about 40 ft. from the shaft a streak of native copper which when driving through it did not seem to be of much importance; but on drifting west on the streak we found that a streak of native copper ran from 1 ft. to 3 1/2 ft. in width. The drift was only extended 18 ft. with native copper still in the breast. A 3 sample taken showing a width of 3-1/2 ft. gave 2.6 % copper. The balance of the distance from the native copper streak to the face of the south crosscut showed small streaks of copper glance and small streaks of iron pyrites and some chalcopyrite going down. 75 ft.

below station one, station two was cut and crosscuts run approximately north and south. North crosscut was extended about 45 ft. and was not extended far enough to get under the iron capping showing on the surface. The south crosscut was run about 55 ft; At about 35 ft. from the station a streak of native copper was passed through. No drifting was done on this streak consequently nothing is known of its extent. From this native copper streak going south no more ore was encountered but

the face looked favorable for ore.

Development Work.

Within the past year the following work has been done ; Shaft "B" was sunk 86 ft.. Water prevented going deeper with whim.

Shaft "A" was sunk 200 ft. shaft with 175 ft. of crosscuts from station one and 105 ft. from station two. The work done previous to this has been scattered about and does not show up much. In all about 700 ft. of work has been done on these claims.

- Conclusion.-

The showing at Shafts "A" and "B" justify further work being done on this group of claims.

It's to be observed that at Shaft "A" the limits of the sheared zone were not developed, nor were indicative of ore followed up as they should be in order to find ore bodies.

The north crosscuts were not driven far enough to get under the iron capping. Then too the general experience of the surrounding country has been that little or no ore is found until after passing the 200 ft point.

By extending the crosscuts at Shaft "A" and following up stringers of ore and sinking to 300 ft; and also sinking Shaft "B" to 200 ft. and then crosscutting one cannot help but get ore.

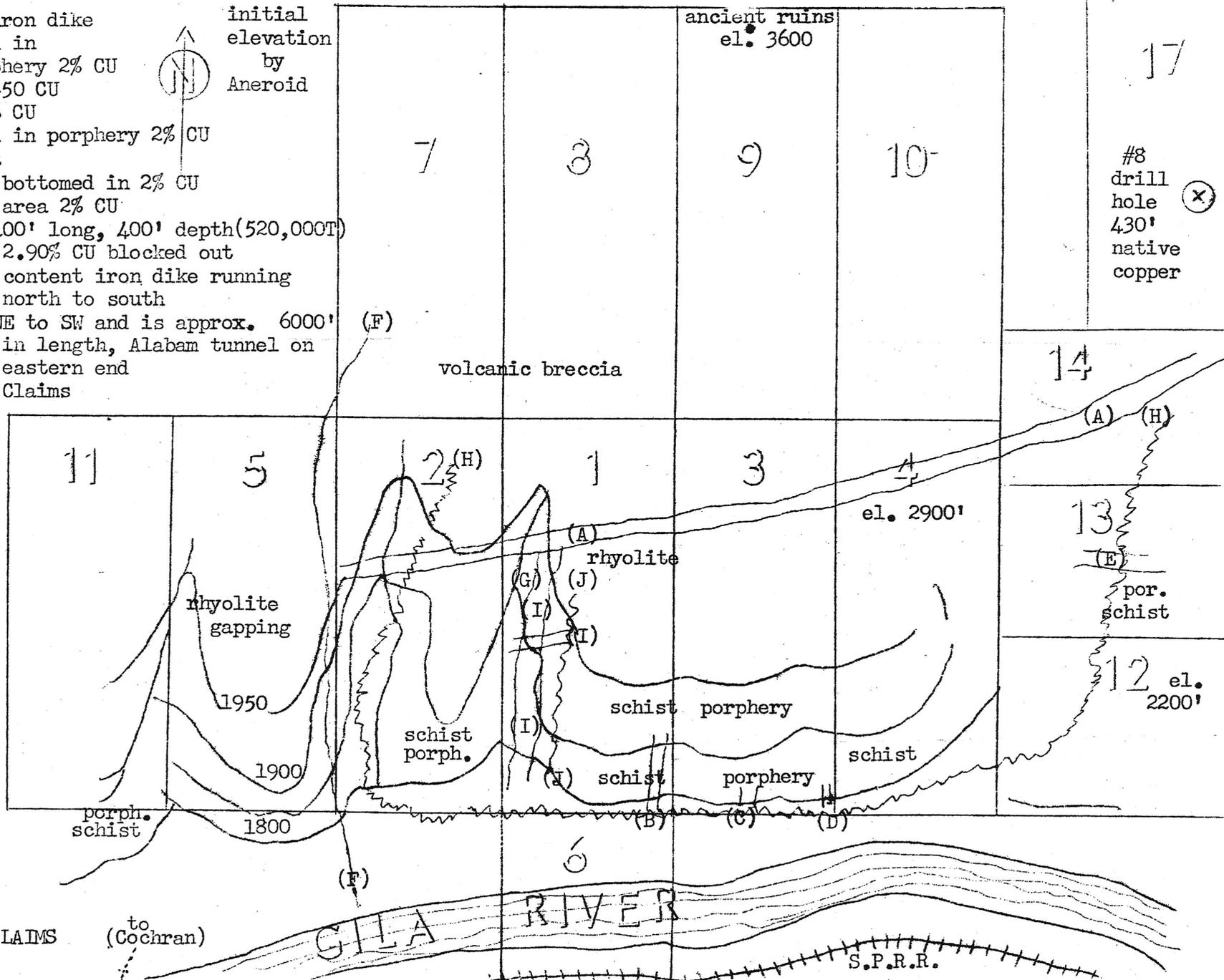
The water at this shaft will not be a serious problem to handle average equipment.

As the proposition stands to-day it will take comparatively every short time to develop it , which is a feature well worth considering. Then too its close proximity to the source of supplies, and railroad, is a circumstance not often attending a layout of this kind. I firmly believe that there is a mine here.

OK'd  
 Jan 1909  
 W. H. Kimball, S. M.

- A - 100' wide iron dike
- B - 175' tunnel in porphery 2% CU
- C - open cut 1-50 CU
- D - open cut 2% CU
- E - 300' tunnel in porphery 2% CU
- F - Magma Fault
- G - 310' shaft bottomed in 2% CU
- H --- H entire area 2% CU
- I - 70' wide, 400' long, 400' depth (520,000T) 2.90% CU blocked out
- J --- J 25% CU content iron dike running north to south  
- runs from NE to SW and is approx. 6000' in length, Alabam tunnel on eastern end
- l - 29 Pioneer Claims

initial elevation by Aneroid



Scale 1" 500'  
PIONEER GROUP CLAIMS  
COPPER

Jan 1956

To: Mr. R.C.Reardon,  
634 West 67 Terrace,  
Kansas City, Mo.

Pursuant to your request I have made a brief examination of a certain group of mining claims in Pinal County, Arizona.

#### Purpose of Examination.

The purpose of the examination was to check previous reports, determine the feasibility of further exploration, and make definite recommendations for such exploration work.

#### Geology.

Geology has been discussed in previous reports and details will not be repeated here. May it suffice to say that the terrain is basically Pinal Schist which has been invaded by monzonitic type intrusions which were copper bearing, resulting in copper mineralization both in the monzonite itself and in the schist. More recent rhyolitic intrusions and extrusions have taken place leaving the vents as dykes, and, after faulting, leaving broken and distorted remnants of the once capping.

#### History and Development.

The group has been known as the Pioneer Group, and, in years past, as the New England States Group. It is located on both sides ( mostly north side) of the Gila River, slightly up stream from the R.R. station of Cochran, on the railroad between Florence and Winkelman, Ariz.

The group has been known and sporadically explored since early in the century. About 1913 there were supposedly eight churn drill holes put down at various locations throughout the property. The location of most of these holes is now unknown, but concerning those whose location is known, the writer could see no reason why they were placed as they were.

Assay results from these holes are somewhat in doubt and garbled. Mr Arthur Flagg, who made an examination in the 20's states that he checked the cuttings at that time and while he does not recall the exact assays, they were very low grade. An old, unsigned memoranda shows the highest at .76%Cu, and the average at less than .50%cu.

These holes would disprove the property as being a potential large open pit mine, but in no manner do they disprove the possibility of these being localized areas of commercial ore.

The owners, or lessees, familiar with the claim boundaries, can spot on a claim map, which I do not have, the areas of chief development, which I will discuss below in brief.

#### Alabama Tunnel & Winze.

The Alabama workings consist of a 100 foot adit, and a 65' winze at a 45° angle, near its face. This area is a mineralized, altered, and leached wide zone of monzonite porphyry, with a probable north-south strike. There are many copper "blossoms" along the zone. The adit enters from the west.

The first portion of the tunnel is highly leached but soon a zone is entered where the walls are "sulphated" indicating the general presence of copper in the rock mass. Previous sampling of a width (along the adit) of about 25 ft before the winze show an average copper content of about 2.00%. Records of apparently careful sampling of the 65' winze show an average of about 2.00%. The winze is at present nearly full of water and would have to be unwatered and repaired before the sampling could be checked.

An old report states that a Vein 8 inches wide of 35% copper was cut in the adit shortly before the winze. This is in error however, as there is no "vein" nor any high grade copper showing in that vicinity.

Sporadic occurrences of high grade copper "kidneys" are not unusual in near-surface locations, in formations such as this. They are usually surficial (near-surface concentrations) and have no continuity. Such may have been the case here, but certainly there is no "vein", nor continuity, nor high grade ore remaining, here.

This throws an element of doubt on the actual value of the ore under water in the winze. However the geological aspects, apparent leaching, and remaining mineralization, are sufficient to warrant more exploration of this area, even without the high grade, or exact values in the winze.

#### Sylvia.

The Sylvia location is down near the river. Here there is a crosscut tunnel in the schist. The tunnel itself is inaccessible but the cut at the portal shows good copper stain for a width of some 50 ft, and the dump shows that some copper ore must have been encountered

underground. Croppings of well stained schist are prevalent in the vicinity.

Number Five.

At the situation known as #5 there is a monzonite porphyry ridge splashed with copper stain. The monzonite is highly altered but there is not much actual leaching in evidence. Below the oxidized zone this would probably be low grade ore.

Pioneer.

The Pioneer zone cuts across a wash and has been "prospected" on both sides. Here we have a monzonitic zone with a NE SW strike and a diabase dyke as a wall on the southeast. There is an old shaft, reported as 210 feet deep on the zone, with reported ore below, but the dump shows very little evidence.

Janet Sue.

Here there is a shaft about 75ft deep with an adit from a near by gulch, connecting near the bottom. The cillar shows a rather strong vein of silicious matter, carrying manganese, but very little copper. The exploration could well have been for silver. Where the adit cuts the shaft the silicious vein matter was proved to be of very short length, pinching out completely in both directions - practically constituting a "pipe". Surface indications show no continuity. Counter activity and uranium assays show a little uranium occurring along the fault wall of the quartz, but this also has no size nor continuity.

Miscellaneous.

Other sporadic outcrops occur throughout the group and there are many items of minor development. However it is thought that the above constitute the main features.

Mining Facilities.

Being on the wrong side of the Gila River the property has been considered as "remote". Actually, by the construction of a simple aerial tram across the 100 yard river, one lands on the railroad within 20 miles of a custom smelter, or within a few miles of a main highway.

Arizona copper smelters are anxious for ores high in silica and low in alumina, such as these ores are, and will make low rates for same. You are actually more fortunate in your presently "remote" location than nine out of ten other potential copper producers.

The Gila River courses through your claims. Shallow wells along its bank would produce sufficient water for either potable or industrial uses. And here again is a facility that is not common in Arizona.

Recommendations.

It is my opinion that this group has no potentialities of making an open pit mine, nor of one justifying plans for a large mill and smelter.

However there are several situations that warrant exploration with view to finding limited sized bodies of shippable ore, and/or fair sized bodies of concentrating ore.

It must be considered that there is no definite tonnage of commercial ore positively proven on this property. Nor any certainty that there ever will be. It is an embryo prospect but does have some good aspects. These prospects or possibilities warrant a limited amount of explorative expenditures. These expenditures must be considered as speculative, but with a better than even chance of success.

In this regard I would recommend angle diamond core drilling as the most economic way of proving or disproving these various possibilities. To be more specific:

Alabama. This situation should be approached with a drill hole starting from a point 300 - 400 east and slightly south from the Alabama winze. It should be inclined at a down angle of 45°, and a course to cut under the winze area. This hole would be approximately 350 - 400 feet in total length.

A 2nd hole should be planned near the same location, to be arbitrarily drilled, whether or not the first hole produces results up to expectations.

( This is because any diamond drill hole may hit the only ore spot, or the only blank spot, in an area. Two holes will minimize such possible error. But the course and angle of the 2nd hole should await the results of the first.

Sylvia. I would also advise two such holes on the Sylvia situation. Located and designed to both crosscut and attain depth in that locality. Here we have a different geological situation, and are exploring a mineralized schist, subject to, and showing evidence of copper replacement - an entirely different situation than that presented at the Alabama.

Pioneer. The Pioneer is different in that it is "across the tracks" geologically, in the western extremes of the group. Conditions could be and are quite different there. Therefore this area should be explored by limited drilling.

I cannot advise further expenditures on the Janet Sue or any other locations until or unless preliminary drilling at the above points works out well. I believe that the above mentioned sites have the best chance, and that if they do not prove out, further exploration is unjustified. If they do prove out, considerable further exploration would be fully justified.

As to required copper content and estimated operating costs, it is impossible to estimate mining costs until an orebody is fully delineated. Smaller bodies with little continuity might cost upward of \$10.00 per ton to mine, whereas large bodies with good continuity could normally cost around \$2.00 per ton - even with underground mining. Costs of hauling to an central aerial tram, and freight to a smelter would be nominal. And as above said, the smelters want that type of ore.

Your whole economy is predicated on positively developing sizeable orebodies.

Of course my advice is primarily predicated on your obtaining a "deal" which would justify such speculative expenditures. If a tough deal, with nearby cash payments were required, I would not advise it. On the other hand I understand that the present lessees have a deal from the owners requiring only \$100.00 per claim payment each year plus 5.0% royalty. In such case it is my opinion that you would be justified in entertaining a deal from them, with a reasonable over-riding royalty, to explore the property in a reasonable manner, as above suggested.

Respectfully Submitted,

*Jan 52*  
*[Signature]*

BRIEF REPORT OF

PIONEER GROUP MINING CLAIMS  
PINAL COUNTY  
COCHRAN, ARIZONA

W. W. WEISSBACH  
ENGINEER OF MINES, Rella '16

(COPY)

*Kindley  
return  
promptly*

**Location:**

The property is located in the Pioneer Mining District, Section Five (5), Pinal County, directly opposite the station of Cochran, Ariz. on the Ray and Gila Valley Railroad, about twenty (20) miles from the Hayden smelter. The Gila river bisects the claims, Elevation 1650 feet.

**Economic Conditions:**

The property is well situated for economical operation as to water, labor, shipping and climate.

**Area:**

The group consists of twenty nine (29) claims. Namely Pioneer #1 to 29 inclusive and cover approximately 580 acres. Eight claims lie south of the river.

**Geology:**

In this area the oldest rocks, the Pinal schists and the intrusive masses of granites are characteristic types of these formations as they are found in most portions of the State. The schist belt occurs in the central and northern part of the property while granite is the prevailing rock south and east, a rhyolite capping covers parts of the property. The capping varies in thickness from a few feet to four hundred feet. So far as is known the rhyolite everywhere overlies a schist breccia and a cementing material. The schist breccia shows no copper stain except in rare instances along prominent fractures where the copper may be considered as having been precipitated by surface waters, or in certain instances along contacts between that breccia and less porous intrusions. Here also, it is probable that copper minerals were precipitated by surface water. Traversing the property in a general north-south direction is a wide dyke of diorite, forming some of the most distinctive topographical features of the area. Out-crop of this dyke occurs in the bed of the Gila River and natives call it the magma fault. The rock is light gray, bearing a fine grained ground mass through which phenocrysts of quartz, feldspar, and biotite are evenly distributed. A large line iron dyke cuts through this porphyry for about 6000 feet and is from 50 to 250 feet wide. The dyke is highly mineralized and carries various amounts of copper, gold and silver.

Besides the intrusives mentioned above there are irregular sheets and masses of diabase and bodies of porphyritic to granular rocks of variable character, ranging from quartz-monzonite to grano-diorite. Some exposures bear a strong resemblance to the quartz-monzonite at Ray. It is believed that these last named intrusive, roughly grouped as porphyries, bear an important relation to the ore deposits of the area. In fact it is believed that the belt of porphyry running from the north-east to the southwest, varying in width from fifty to one hundred feet, through the center of the property will develop the largest bodies of commercial ore on the property.

The development work on the property consists of (A) about 5,000 feet of churn drilling and (B) 1500 feet of shafts and tunnels. The churn drilling was all done in an area roughly 1,000 feet square. This area shows on the surface conspicuously red stained schist, in places leached to a light yellow color. The results 0.763% copper. In view of the system followed in placing the drill holes they can hardly be considered conclusive evidence in determining the value of even the schist. A study of the ground indicates that the drilling operations did not reach the porphyry belt which is believed to be the mineralized area of greatest importance. Because the porphyry dips north the most southerly holes passed through only the oxidized portions of the belt, while the most northerly holes were not carried deep enough to reach it.

The deepest shaft is 300 feet deep. This was bottomed in schist, well mineralized and carrying 2% copper. The work consists of numerous shafts and tunnels many of which supply interesting and valuable data concerning the future of the property.

The only work deserving of special mention is the Alabama tunnel and the 75-ft. winze therefrom. For a little over forty feet the Alabama adit is driven through the leached and bleached residue of what was a well mineralized quartz-porphry. As the adit gains depth the ground becomes firmer and less altered. Just before the winze is reached, a cross fracture, eight inches wide, was cut. This assayed 35% copper. Beyond this streak a ten foot zone, exceptionally well mineralized, assays 2.11% copper. On the hanging-wall side of this ten foot streak, a winze was sunk 75 ft. The winze is bot-tomed in a light gray, silicified rock carrying chalcopryite, chalcocite, native copper and some pyrite. Samples around the four sides of the winze at five foot intervals gave the folling results: (1) 2.45%; (2) 3.12%; (3) 1.99%; (4) 1.66%; (5) 2.12%; (6) 1.42%; (7) 1.99%; (8) 0.95%; (9) 1.54%; (10) 1.85%; (11) 1.08%; (12) 1.15%; (13) 2.00%; a composite of the rejects from the above samples assayed 0.70 oz. silver and 0.03 oz. gold.

Samples in the adit beyond the winze taken at intervals of five foot assayed as follows: (1) 2.11%; (2) 1.25%; (3) 1.16%; (4) 2.13%; (5) 0.12%; (6) 0.12%; copper.

At the extreme eastern end of the property some very high grade copper ore was opened up on April 1921. This ore consists of cuprite (copper oxide) and native copper, accompanied by high silver values. The ore occurs next to the south porphyry. The ground from this point north-ward to the north porphyry appears to have been well mineralized. The full extent of this mineralization as yet has not been definitely proven but it is known to be over one hundred feet.

The old Alabama claim is the logical place for the initial deep prospecting. The ore zone which seems to be the longest, widest and most likely to produce the largest tonnage of ore can be most advantageously developed by a shaft not far from the Alabama tunnel, Because of the great length of this one zone more than one shaft will be required to develop it. The first work, however, should be done at a point where the conditions are best understood. The site selected for the first shaft is such that if any shipping ore is developed in sinking it can be delivered to the railway in an aerial tramway and loaded direct onto the cars. For this reason ore can be but into the smelter for less than itis costing some mining companies to place their ore aboard the cars.

The ore zone which the Alabama tunnel is driven has been prospected for fully a mile along the strike. Over this distance the width varies from fifty to over one hundred feet. Though leached at the surface this zone, where-ever opened up is well mineralized. In every instance where work has been carried deep enough to encounter primary ore they have been found to be of good grade. The earlier prospecting has shown clearly the area within which ore bodies should be sought. The more recent work has demonstrated that a still deeper work will possibly open up large bodies of commercial grade ore. After a through study of conditions, checked by sampling, the only conclusion to be drawn is that the property is one of merit which may become a profitable producer of copper.

This property can be developed by sinking shafts on the Alabama claim or by developing low grade by using the lowest tunnel as a base for drilling for proving the extent of deposit. In this years development work, a body of low grade copper was opened up for a distance of (70) seventy feet south of the Pioneer Shaft averaging 2.9% copper.

Yours respectfully,

W. W. Weissbach  
Engineer of Mines, Rolla '16

Aug 1-572

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date

1. Mine  Old Pioneer
2. Mining District & County Pinal County
3. Former name  Old Pioneer
5. Owner
7. Operator
9. President
11. Mine Supt.
13. Principal Metals  Copper, gold, silver
15. Production Rate
17. Power: Amt. & Type
18. Operations: Present
  
19. Operations Planned
  
  
20. Number Claims, Title, etc.
  
  
21. Description: Topography & Geography
  
  
22. Mine Workings: Amt. & Condition About 80 ft. of tunnel and an old shaft about 100 feet down full of water.

23. Geology & Mineralization      Azurite and malachite in schist.
24. Ore: Positive & Probable, Ore Dumps, Tailings      Probably about 30 tons of ore on dump.
- 24-A Vein Width, Length, Value, etc.      Ore in tunnel  $4\frac{1}{2}$  ft. wide. Length 80 ft. Assay  
12% copper.
25. Mine, Mill Equipment & Flow Sheet
26. Road Conditions, Route      Next to railroad. Could use gravity cable tramway to  
ore bin on railroad. Distance not in excess of 1/8 mile.
27. Water Supply      Gila River.
28. Brief History      Last worked in 1926 by three partners - names not known. Withdrawn  
from mineral entry in 1928.
29. Special Problems, Reports Filed
30. Remarks
31. If property for sale: Price, terms and address to negotiate.
32. Signed.....
33. Use additional sheets if necessary.

Jan 10, 1956.

Mr. R.C. Reardon,  
8902 Ardmore,  
Houston, Texas.

Dear Mr. Reardon:-

I have yours of the 9th. I think I understand your circumstances but before I could advise you on a deal I would have to know more about what the deal includes.

Generally speaking any expenditures on that property must be considered as highly speculative. If you are offered the kind of a deal wherein you have to make certain substantial expenditures, and then either drop out with that loss, or continue making expenditures, I would advise against it. That is unless losses are welcome as they are in certain tax brackets

On the other hand if you can make the expenditures for the drilling program I outlined in the report and such give you a 50% permanent interest in the property, I would advise it. This is largely because there is a growing demand for such prospects from the big companies, and although you might have to hold the investment for an indefinite period there seems an excellent chance that you will be taken out at a profit. And of course you have the interim chance of making a small producer.

However the making of even a small producing copper mine runs into considerable capital, and the making of a big low-grade producer usually runs into many millions.

Your most sensible approach would be to do this preliminary drilling as a speculation. If successful you could then capitalize to ship or approach the large companies. If of doubtful success, you could hold your interest and hope for changing conditions that might change the picture. In this case you would be liable for your %age portion of yearly assessment work.

I am not clear on the over-riding royalty matter. I would think that you should be entitled

to join in on the Mountain States deal in whatever royalty their deal calls for without their assessing any over-riding royalty against you.

If it should turn out that you want to do business with the larger companies I am quite sure that would object to paying you or the Mountain States any over-riding royalty. At the same time they would be willing to make very substantial purchase price payments, if the project interested them sufficiently.

If you can furnish me with a copy of the Mountain States deal with the owner, and your deal in turn with them, I would be happy to advise you in more detail. But generally speaking I would not make the expenditures if it puts you in a position of a continuing tight deal. But if it actually buys you a substantial interest I think it would be worth while.

Please feel free to call on me whenever I can help.

Yours Sincerely,

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# WESTERN UNION

FX-1201

SYMBOLS

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- NL=Night Letter
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- VLT=Int'l Victory Ltr.

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W. P. MARSHALL, PRESIDENT

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THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

*From the desk of*

FRANK P. KNIGHT

2-25-58

According to A. L. Flagg, Tom Sparks drilled this property, north of the Gila River near Cochran, and the drill logs are in the Department files.

Mr. Flagg thought the sampling showed about 1.25% copper for the area of schist drilled. Needs further exploration particularly to the west beneath the rhyolite. F. W. Maclellan drilled south of the river to a depth of about 1500 feet and found too low grade to interest him.

- ✓ Pioneer Mine is the same as the
- ✓ New England States Group (file)

5902 Urdmore  
Houston, Texas

Dear Mr. Dunning:

I enjoyed my visit to Phoenix  
and our trip to the Pioneer claims.  
I received your mining report in  
C. and presented it to our group.

As I tried to relay to you  
Phoenix, we are only interested  
in investment and not the "get  
rich quick" philosophy. I also  
mentioned to you that I am a  
union associate.

Our group is in no sense of  
the word "mining people" although  
a few have some oil production.  
They appreciated your "frankness"  
and conservativeness.

They asked me to contact you  
again and obtain from your wide  
experience your personal opinion  
on the following:

"Putting yourself in our shoes"  
Do you deem these claims worthy  
of limited investment?

In your opinion what would be  
a fair "deal" between Mountain  
States Mining and our group?

a) As it now stands we are to  
put up all venture capital  
for core drilling for a 50%  
interest. However, Mountain  
States Mining Co. has not  
mentioned what the over-  
riding royalty would be,  
but I presume that they are  
preparing that now. Just how  
should this over-riding royalty  
read? For instance if core  
drilling proves unsatisfactory  
after 2 or 3 holes would we still  
maintain whatever % over-riding  
royalty you deem fair if the

project were dropped. All of the above would be based on your recommendations as we definitely plan to employ your services, if a satisfactory contract can be made with Mountain States Mining Co.

Probably the main reason for inquiring on the above questions is that our group was wondering (looking at the worst side) if drilling didn't prove out, but at a later date another group came in with Mountain States Mining and were able to set up an operation on some portion of the claims (there are 32 claims) would we be entitled to an overriding royalty. As you know if we abandon the project the leases revert back to Mountain States Mining Co.

We would appreciate any suggestions that you can advance pertaining to the above. Hoping to see a lot of you in the future I remain.

Very truly yours,  
R. C. Beardon

P.S. If time doesn't permit an early answer, you can call me collect at Jackson 9-3205 - 5902 Ardmore Houston, Texas. Anytime after 6 P.M. in the evening except tomorrow (Monday) I will be at the above number.



Jan 1956

To: Mr. R.C.Reardon,  
634 West 67 Terrace,  
Kansas City, Mo.

Pursuant to your request I have made a brief examination of a certain group of mining claims in Pinal County, Arizona.

Purpose of Examination.

The purpose of the examination was to check previous reports, determine the feasibility of further exploration, and make definite recommendations for such exploration work.

Geology.

Geology has been discussed in previous reports and details will not be repeated here. May it suffice to say that the terrain is basically Pinal Schist which has been invaded by monzonitic type intrusions which were copper bearing, resulting in copper mineralization both in the monzonite itself and in the schist. More recent rhyolitic intrusions and extrusions have taken place leaving the vents as dykes, and, after faulting, leaving broken and distorted remnants of the once capping.

History and Development.

The group has been known as the Pioneer Group, and, in years past, as the New England States Group. It is located on both sides ( mostly north side) of the Gila River, slightly up stream from the R.R.station of Cochran, on the railroad between Florence and Winkleman, Ariz.

The group has been known and sporadically explored since early in the century. About 1913 there were supposedly eight churn drill holes put down at various locations throughout the property. The location of most of these holes is now unknown, but concerning those whose location is known, the writer could see no reason why they were placed as they were.

Assay results from these holes are somewhat in doubt and garbled. Mr Arthur Flagg, who made an examination in the 20's states that he checked the cuttings at that time and while he does not recall the exact assays, they were very low grade. An old, unsigned memoranda shows the highest at .76%Cu, and the average at less than .50%cu.

These holes would disprove the property as being a potential large open pit mine, but in no manner do they disprove the possibility of these being localized areas of commercial ore.

The owners, or lessees, familiar with the claim boundaries, can spot on a claim map, which I do not have, the areas of chief development, which I will discuss below in brief.

#### Alabama Tunnel & Winze.

The Alabama workings consist of a 100 foot adit, and a 65' winze at a 45° angle, near its face. This area is a mineralized, altered, and leached wide zone of monzonite porphyry, with a probable north-south strike. There are many copper "blossoms" along the zone. The adit enters from the west.

The first portion of the tunnel is highly leached but soon a zone is entered where the walls are "sulphated" indicating the general presence of copper in the rock mass. Previous sampling of a width (along the adit) of about 25 ft before the winze show an average copper content of about 2.00%. Records of apparently careful sampling at the 65' winze show an average of about 2.00%. The winze is at present nearly full of water and would have to be unwatered and repaired before the sampling could be checked.

An old report states that a Vein 8 inches wide of 35% copper was cut in the adit shortly before the winze. This is in error however, as there is no "vein" nor any high grade copper showing in that vicinity.

Sporadic occurrences of high grade copper "kidneys" are not unusual in near-surface locations, in formations such as this. They are usually surficial (near-surface concentrations) and have no continuity. Such may have been the case here, but certainly there is no "vein", nor continuity, nor high grade ore remaining, here.

This throws an element of doubt on the actual value of the ore under water in the winze. However the geological aspects, apparent leaching, and remaining mineralization, are sufficient to warrant more exploration of this area, even without the high grade, or exact values in the winze.

#### Sylvia.

The Sylvia location is down near the river. Here there is a crosscut tunnel in the schist. The tunnel itself is inaccessible but the cut at the portal shows good copper stain for a width of some 50 ft, and the dump shows that some copper ore must have been encountered

underground. Croppings of well stained schist are prevalent in the vicinity.

Number Five.

At the situation known as #5 there is a monzonite porphyry ridge splashed with copper stain. The monzonite is highly altered but there is not much actual leaching in evidence. Below the oxidized zone this would probably be low grade ore.

Pioneer.

The Pioneer zone cuts across a wash and has been "prospected" on both sides. Here we have a monzonitic zone with a NE SW strike and a diabase dyke as a wall on the southeast. There is an old shaft, reported as 210 feet deep on the zone, with reported ore below, but the dump shows very little evidence.

Janet Sue.

Here there is a shaft about 75ft deep with an adit from a near by gulch, connecting near the bottom. The collar shows a rather strong vein of silicious matter, carrying manganese, but very little copper. The exploration could well have been for silver. Where the adit cuts the shaft the silicious vein matter was proved to be of very short length, pinching out completely in both directions - practically constituting a "pipe". Surface indications show no continuity. Counter activity and uranium assays show a little uranium occurring along the fault wall of the quartz, but this also has no size nor continuity.

Miscellaneous.

Other sporadic outcrops occur throughout the group and there are many items of minor development. However it is thought that the above constitute the main features.

Mining Facilities.

Being on the wrong side of the Gila River the property has been considered as "remote". Actually, by the construction of a simple aerial tram across the 100 yard river, one lands on the railroad within 20 miles of a custom smelter, or within a few miles of a main highway.

Arizona copper smelters are anxious for ores high in silica and low in alumina, such as these ores are, and will make low rates for same. You are actually more fortunate in your presently "remote" location than nine out of ten other potential copper producers.

The Gila River courses through your claims. Shallow wells along its bank would produce sufficient water for either potable or industrial uses. And here again is a facility that is not common in Arizona.

Recommendations.

It is my opinion that this group has no potentialities of making an open pit mine, nor of one justifying plans for a large mill and smelter.

However there are several situations that warrant exploration with view to finding limited sized bodies of shippable ore, and/or fair sized bodies of concentrating ore.

It must be considered that there is no definite tonnage of commercial ore positively proven on this property. Nor any certainty that there ever will be. It is an embryo prospect but does have some good aspects. These prospects or possibilities warrant a limited amount of explorative expenditures. These expenditures must be considered as speculative, but with a better than even chance of success.

In this regard I would recommend angle diamond core drilling as the most economic way of proving or disproving these various possibilities. To be more specific:

Alabama. This situation should be approached with a drill hole starting from a point 300 - 400 east and slightly south from the Alabama winze. It should be inclined at a down angle of  $45^{\circ}$ , and a course to cut under the winze area. This hole would be approximately 350 - 400 feet in total length.

A 2nd hole should be planned near the same location, to be arbitrarily drilled, whether or not the first hole produces results up to expectations.

( This is because any diamond drill hole may hit the only ore spot, or the only blank spot, in an area. Two holes will minimize such possible error. But the course and angle of the 2nd hole should await the results of the first.

Sylvia. I would also advise two such holes on the Sylvia situation. Located and designed to both crosscut and attain depth in that locality. Here we have a different geological situation, and are exploring a mineralized schist, subject to, and showing evidence of copper replacement - an entirely different situation than that presented at the Alabama.

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Respectfully Submitted,

Jan '52  
CRD

BRIEF REPORT OF

PIONEER GROUP MINING CLAIMS  
PINAL COUNTY  
COCHRAN, ARIZONA

W. W. WEISSBACH  
ENGINEER OF MINES, Rolla '16

(COPY)

*Kindley  
return  
promptly*

Location:

The property is located in the Pioneer Mining District, Section Five (5), Pinal County, directly opposite the station of Cochran, Ariz. on the Ray and Gila Valley Railroad, about twenty (20) miles from the Hayden smelter. The Gila river bisects the claims, Elevation 1650 feet.

Economic Conditions:

The property is well situated for economical operation as to water, labor, shipping and climate.

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At the extreme eastern end of the property some very high grade copper ore was opened up on April 1921. This ore consists of cuprite (copper oxide) and native copper, accompanied by high silver values. The ore occurs next to the south porphyry. The ground from this point northward to the north porphyry appears to have been well mineralized. The full extent of this mineralization as yet has not been definitely proven but it is known to be over one hundred feet.

The old Alabama claim is the logical place for the initial deep prospecting. The ore zone which seems to be the longest, widest and most likely to produce the largest tonnage of ore can be most advantageously developed by a shaft not far from the Alabama tunnel. Because of the great length of this one zone more than one shaft will be required to develop it. The first work, however, should be done at a point where the conditions are best understood. The site selected for the first shaft is such that if any shipping ore is developed in sinking it can be delivered to the railway in an aerial tramway and loaded direct onto the cars. For this reason ore can be put into the smelter for less than it is costing some mining companies to place their ore aboard the cars.

The ore zone which the Alabama tunnel is driven has been prospected for fully a mile along the strike. Over this distance the width varies from fifty to over one hundred feet. Though leached at the surface this zone, wherever opened up is well mineralized. In every instance where work has been carried deep enough to encounter primary ore they have been found to be of good grade. The earlier prospecting has shown clearly the area within which ore bodies should be sought. The more recent work has demonstrated that still deeper work will possibly open up large bodies of commercial grade ore. After a thorough study of conditions, checked by sampling, the only conclusion to be drawn is that the property is one of merit which may become a profitable producer of copper.

This property can be developed by sinking shafts on the Alabama claim or by developing low grade by using the lowest tunnel as a base for drilling for proving the extent of deposit. In this years development work, a body of low grade copper was opened up for a distance of (70) seventy feet south of the Pioneer Shaft averaging 2.9% copper.

Yours respectfully,

W. W. Weissbach  
Engineer of Mines, Rolla '16

Aug 1-52

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date

1. Mine  Old Pioneer
2. Mining District & County Pinal County
3. Former name  Old Pioneer
4. Location About 15 miles east of Florence, Arizona
5. Owner
6. Address (Owner)
7. Operator
8. Address (Operator)
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals  Copper, gold, silver
14. Men Employed
15. Production Rate
16. Mill: Type & Cap.
17. Power: Amt. & Type
18. Operations: Present
  
19. Operations Planned
  
20. Number Claims, Title, etc.
  
21. Description: Topography & Geography
  
22. Mine Workings: Amt. & Condition About 80 ft. of tunnel and an old shaft about 100 feet down full of water.

23. Geology & Mineralization      Azurite and malachite in schist.

24. Ore: Positive & Probable, Ore Dumps, Tailings      Probably about 30 tons of ore on dump.

24-A Vein Width, Length, Value, etc.      Ore in tunnel  $4\frac{1}{2}$  ft. wide. Length 80 ft. Assay  
12% copper.

25. Mine, Mill Equipment & Flow Sheet

26. Road Conditions, Route      Next to railroad. Could use gravity cable tramway to  
ore bin on railroad. Distance not in excess of 1/8 mile.

27. Water Supply      Gila River.

28. Brief History      Last worked in 1926 by three partners - names not known. Withdrawn  
from mineral entry in 1928.

29. Special Problems, Reports Filed

30. Remarks

31. If property for sale: Price, terms and address to negotiate.

32. Signed.....

33. Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date

1. Mine **Old Pioneer**
2. Mining District & County **Pinal County**
3. Former name **Old Pioneer**
5. Owner
7. Operator
9. President
11. Mine Supt.
13. Principal Metals **Copper, gold, silver**
15. Production Rate
17. Power: Amt. & Type
18. Operations: Present

4. Location **About 15 miles east of Florence, Arizona**

6. Address (Owner)
8. Address (Operator)
10. Gen. Mgr.
12. Mill Supt.
14. Men Employed
16. Mill: Type & Cap.

19. Operations Planned

20. Number Claims, Title, etc.

21. Description: Topography & Geography

22. Mine Workings: Amt. & Condition **About 80 ft. of tunnel and an old shaft about 100 feet down full of water.**

23. Geology & Mineralization **azurite and malachite in schist.**

24. Ore: Positive & Probable, Ore Dumps, Tailings **Probably about 30 tons of ore on dump.**

24-A Vein Width, Length, Value, etc. **Ore in tunnel  $4\frac{1}{2}$  ft. wide. Length 80 ft. Assay 12% copper.**

25. Mine, Mill Equipment & Flow Sheet

26. Road Conditions, Route **Next to railroad. Could use gravity cable tramway to ore bin on railroad. Distance not in excess of 1/8 mile.**

27. Water Supply **Gila River.**

28. Brief History **Last worked in 1926 by three partners - names not known. Withdrawn from mineral entry in 1928.**

29. Special Problems, Reports Filed

30. Remarks

31. If property for sale: Price, terms and address to negotiate.

32. Signed.....

33. Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
MINE OWNER'S REPORT

Date

1. Mine *Old Pioneer*
2. Location *About 15 miles east of Florence Arizona*
3. Mining District & County *Pinal County*
4. Former name *Old Pioneer*
5. Owner
6. Address (Owner)
7. Operator
8. Address (Operator)
9. President, Owning Co.
- 9A. President, Operating Co.
10. Gen. Mgr.
14. Principal Minerals *Copper gold Silver*
11. Mine Supt.
15. Production Rate
12. Mill Supt.
16. Mill: Type & Cap.
13. Men Employed
17. Power: Amt. & Type
18. Operations: Present
19. Operations: Planned
20. Number Claims, Title, etc.
21. Description: Topography & Geography
22. Mine Workings: Amt. & Condition *about 80 ft of tunnel and an old shaft about 100 ft. down full of water*

(over)

23. Geology & Mineralization

azurite and malachite  
in schist.

24. Ore: Positive & Probable, Ore Dumps, Tailings

of ore on dump. probably about 3 tons

24A. Dimensions and Value of Ore body

ore in tunnel  $4\frac{1}{2}$  ft wide  
length 80 ft. assay 12% copper.

25. Mine, Mill Equipment & Flow-Sheet

26. Road Conditions, Route

use cable tramway to ore bin on railroad.  
distance not in excess of 1/8 mile.

27. Water Supply

Gila River

28. Brief History

Just worked in 1926 - by three  
partners. names not known. Work drawn  
from mineral entry in 1928 -

29. Special Problems, Reports Filed

30. Remarks

31. If property for sale: Price, terms and address to negotiate.

32. Signature.....

33. Use additional sheets if necessary.

Jan 10, 1956.

Mr. R.C. Reardon,  
8902 Ardmore,  
Houston, Texas.

Dear Mr. Reardon:-

I have yours of the 9th. I think I understand your circumstances but before I could advise you on a deal I would have to know more about what the deal includes.

Generally speaking any expenditures on that property must be considered as highly speculative. If you are offered the kind of a deal wherein you have to make certain substantial expenditures, and then either drop out with that loss, or continue making expenditures, I would advise against it. That is unless losses are welcome as they are in certain tax brackets

On the other hand if you can make the expenditures for the drilling program I outlined in the report and such give you a 50% permanent interest in the property, I would advise it. This is largely because there is a growing demand for such prospects from the big companies, and although you might have to hold the investment for an indefinite period there seems an excellent chance that you will be taken out at a profit. And of course you have the interim chance of making a small producer.

However the making of even a small producing copper mine runs into considerable capital, and the making of a big low-grade producer usually runs into many millions.

Your most sensible approach would be to do this preliminary drilling as a speculation. If successful you could then capitalize to ship or approach the large companies. If of doubtful success, you could hold your interest and hope for changing conditions that might change the picture. In this case you would be liable for your %age portion of yearly assessment work.

I am not clear on the over-riding royalty matter. I would think that you should be entitled

to join in on the Mountain States deal in whatever royalty their deal calls for without their assessing any over-riding royalty against you.

If it should turn out that you want to do business with the larger companies I am quite sure that would object to paying you or the Mountain States any over-riding royalty. At the same time they would be willing to make very substantial purchase price payments, if the project interested them sufficiently.

If you can furnish me with a copy of the Mountain States deal with the owner, and your deal in turn with them, I would be happy to advise you in more detail. But generally speaking I would not make the expenditures if it puts you in a position of a continuing tight deal. But if it actually buys you a substantial interest I think it would be worth while.

Please feel free to call on me whenever I can help.

Yours Sincerely,

I am not clear on the over-riding royalty matter. I would think that you would be entitled

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