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76. YAUAPAI

LEASING AND CUSTOM MILLING PROJECT

TIP TOP MINING DISTRICT, YAVAPAI COUNTY, ARIZONA.

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Copy in "76" Group file

The following project consists of three distinct parts,viz:

1. Lease on the "76" Group for development and production.

2. Lease on the Tip Top Group, and mill; for development and production.

3. Rehabilitation of mill,with necessary additions to treat custom ores.

In support of this proposal there is submitted:

1. A brief report on the "76" Group.

2. A statement regarding the Tip Top,compiled from old reports.

3. A brief statement of other potential sources of ore for custom tretament.

4. A description of the Tip Top Mill.

5. An analysis of milling operations in the Tip Top mill while under lease.

THE "76" MINE OF

LA BAJADA EXPLORATION ENGINEERING AND EQUIPMENT CORPORATION

The properties of La Bajada E E & E Corporation are located in the Tip Top mining district, along the southern border of Yavapai county, in Arizona, about fifty-four miles from Phoenix. There are seven unpatented mining claims in the group, which is commonly known as the "76" Group.

Except for the last eleven miles, which unimproved mountain road, the whole distance between Phoenix and the mine is over good roads.

The Tip Top district is at the southern tip of the Bradshaw Mountains, in an area characterized by rugged topography, the result of vigorous erosion. Steep sided valleys, rough surfaces with little soil and scant vegetation are the principal characteristics. Water on the surface is not abundant. Cottonwood wash runs intermittently, depending on the season. Drainage is south to the Agua Fria River. Water has been encountered in most of the mines at no great depth from the surface though in no great amounts. There is no data regarding water levels or quantities in various mines.

The principal formation of the Tip Top district is a complex system of pre-Cambrian granitic to schistose rocks. These are cut promiscuously by aplite and pegmatite dikes, the latter being very abundant. Just above the Tip Top mill, crossing Cottonwood wash is a wide, conspicuous white dike of rhyolite porphyry. Some basic dikes occur. No detailed study has been made of the geology of the district. The subject is treated briefly in U.S.Geol.Survey Geol.Atlas, Bradshaw Mountain folio No.126 (1905) and in U.S.Geol.Survey Bulletin 782, "Ore Deposits of the Jerome and Bradshaw Mountains Quadrangles, Arizona" (1926). The veins are fairly well-defined fissures with NE - SW strikes, usually dipping to the NW. Veins in this district are characteristically long. The only gangue material is quartz, probably of two generations. In the "76" the quartz is sometimes frozen to the Hanging-wall. The identified ore minerals are: arsenopyrite, pyrite, sphalerite, galena, cerargyrite, proustite, pyrargyrite, argentite and native silver. Oxidation extends to approximately two-hundred feet below the outcrop. The gold content is almost negligible.

The Tip Top camp is one of the oldest in Arizona. The production from 1875 to 1888, was approximately $4,000,000. During this period the "76" property was discovered but was not extensively operated. Only one claim had any considerable production. The production since 1936 is made a part of this report.

Development work on the "76" claim amounts to about 1500-ft, exclusive of stopes and raises. The adit level is approximately 550-ft long. In the development plan a winze was sunk 180-ft below this adit, beginning at a point about 80 feet from the portal. In the summer of 1939 a raise was made above this winze to the surface and a gasoline hoist installed on the top. Levels have been driven both north and south from the winze at points 60, 120 and 180 feet below the adit level. The south drifts are short. On the 60-ft level the north drift is about 60-ft. On the 120 and 180 levels the drifts are much longer but in both levels they are caved something over 100-ft north of the winze. Though a small amount of stoping has been done from south drifts the major production has been from stopes between the 180 and 60-ft levels.

The "76" workings have never been sampled systematically. There is some ore above the adit level, but nothing definite is known as to its value. The shoot south of the winze has been only imperfectly prospected. The greater part of the production tabulated on the accompanying sheet has come from the shoot which lies mainly north of the winze. The greatest stopes sections are in this shoot and between the 180 and 120 levels, with a considerable amount above the 120, not reaching higher than the 60-ft level. Another ore shoot to the north is indicated but has not been opened up.

Just south of the air raise from the 180 level to the 120 there is still some ore left in place in the back. This was sampled by the writer in July 1940. Eight inches of quartz on the foot wall side assayed o.02 oz gold and 18.0 oz silver. The remaining ten inches on the hanging wall side assayed 0.02 oz gold and 16.8 oz silver. Twenty-two feet north a sample across ten inches of quartz gave a trace of gold and 4.68 oz silver. One other sample was taken on this level by the writer at fifteen feet north of the shaft. This was cut across twenty-four inches of crushed quartz and country rock. The quartz streak is about 5 inches wide. This sample assayed 0.02 oz gold and 13.86 oz silver.

During January 1940, prior to retimbering on the 180 level, four samples were taken of the quartz streak in the underhand stope, just north of the shaft, which was open at that time. They were taken at intervals of five feet beginning at eighteen inches north of the south end of the stope. The widths sampled were 1.5 inches, 2.0 inches, 3.0 inches and 4.0 inches respectively. The silver content of these quartz samples in ounces was: 198.2; 104.12; 6.32; and 31.40. From this underhand stope the shipment assayed 0.01 oz gold, 221.0 oz silver 0.2% lead and 0.05% copper. This was made in January 1940, and is the deepest ore mined in all the "76" workings of La Bajada.

In July 1940, when the air raise, from the 120 level to the adit level was holed through the vein at this point, which was twelve inches wide, was sampled by the writer. The silver content was 0.01 oz gold and 43.0 oz silver.

A great many other samples have been taken at one time or another but no record has been kept, hence the samples and assay results are of little value now. Those noted above are all properly identified on the map and by suitable markers underground, excepting the four underhand-stope samples. This area has been filled in.

One claim in this group, north of the "76" and presumably on the same vein, is known as the Fourth of July. This claim produced some very rich ore in the early days of the camp. There are three adits on this claim, close together and one above the other. Though no critical examination was made of these workings it would seem that this claim might produce again under a contract or leasing system, after some exploratory work has been done.

On the south end of the "76" claim is the Bernard claim which also had some production during the early days. There is a shallow shaft on the property dating back to the earlier period and another deeper one sunk in the foot wall from which no crosscut has yet been run to the vein.

Too little is known about other parts of the "76" Group to warrant any very definite statements. The general aspect of less extensively prospected areas is such as to encourage exploration. The "76" claim itself is definitely a promising prospect. Only one shoot has been explored to a depth of 180 feet. In the bottom that shoot seems to be as strong as ever. This shoot has been very productive as can be seen from the tabulation of shipments. There is no reason why this should persist to greater depths. The partially explored shoot on the south of the 180-ft winze will be encountered in the shaft when sinking is resumed. There are

certain indications in the adit level of a third shoot north of the one on which most of the stoping has been done. All things considered there is no reason to doubt the outcome of further development. The shaft should be deepened and drift s should be carried further north into the mountain. While this work is in progress on the "76" it would be well to investigate both the Fourth of July and Bernard.

With adequate development there seems to be no reason why the "76" claim should not produce from 15 to 25 tons of milling ore a day. It is reasonable to expect some tonnage from both the Fourth of July and Bernard in addition. Therefore the immediate need of the "76" Group is intelligent and comprehensive development.

Respectfully submitted,

A. L. Flagg,
Consulting Engineer.

Phoenix, Arizona,
September 20th, 1940.

MAPS.

Accompanying this report are five maps:

Plate I: A key map of Arizona, showing the relative position of the Tip Top camp.

Plate II: A map prepared, from actual survey, by H.D.Phelps, in 1939, showing the relative position of the Tip Top and "76" properties. Mining claims (the approximate positions) where added by A.L.F.

Plate III: Elevation of the "76" workings. This is traced, in part, from a photostatic copy (reduced 1/2) of an elevation prepared in 1939 by H.D.Phelps. To the original drawing of Phelps additions were made by others, conversant with the workings in question.

Plate IV: Plan of the "76" workings, also traced from a reduced photostatic copy of an original map by H.D.Phelps, in 1939. As in the case of the elevation, additions have been made subsequently by several persons and all are incorporated into this plate.

Preceeding the maps there is a tabulation of the total production of La Bajada E E & E Corporation. This is made up of concentrates and raw ores, which are treated separately in the tabulation.

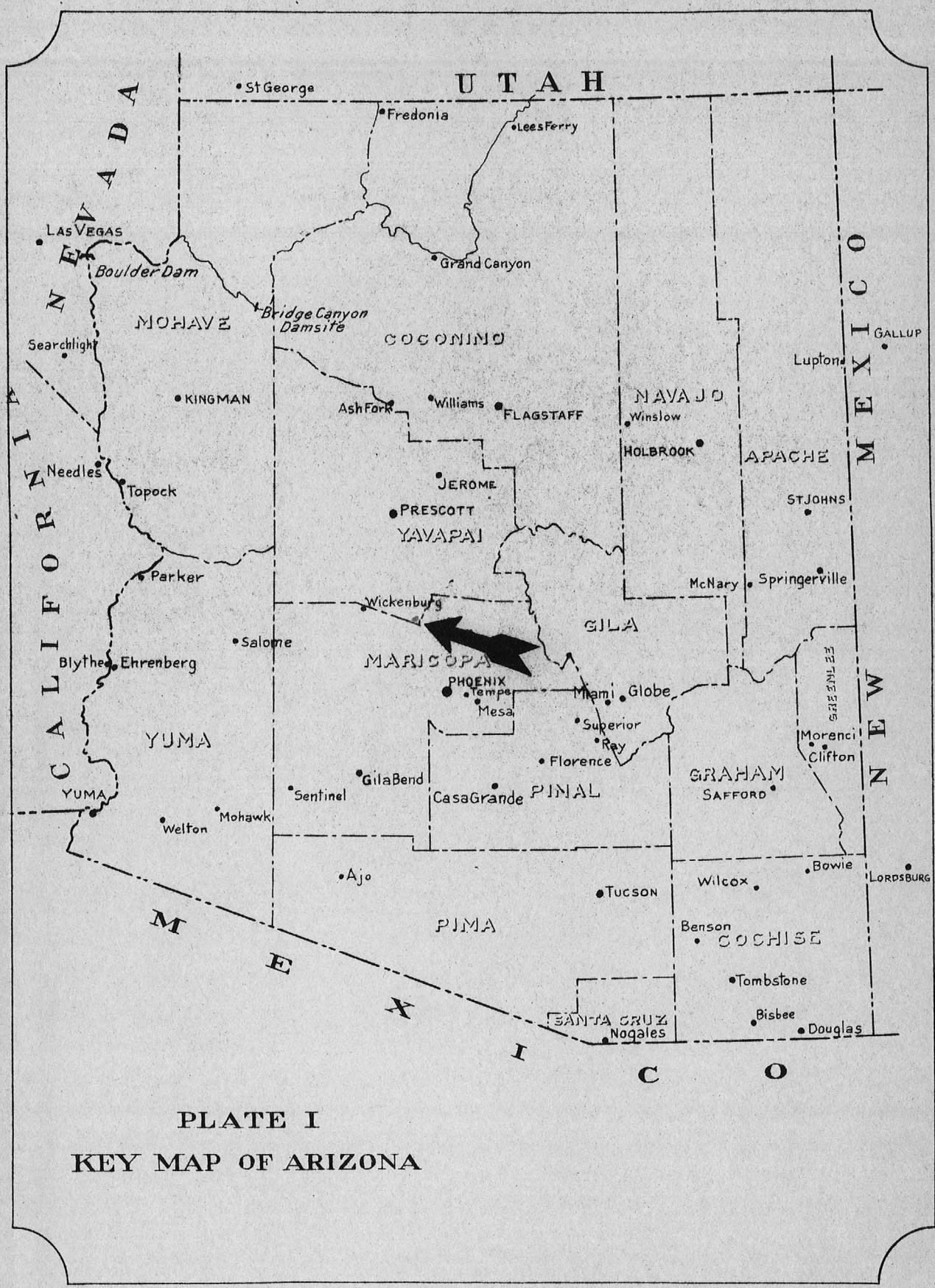


PLATE I

KEY MAP OF ARIZONA

NOTES ON TIP TOP MINE.

The Tip Top mine is among the oldest mining locations in Arizona. Discovered in 1860, officially located in 1876, it yielded $4,000,000 in silver before 1883. Since the drop in the price of silver it has been worked only intermittently.

The property consists of three patented and three unpatented claims, located on Cottonwood wash, in yavapai county at the southern tip of the Bradshaw mountains. By road the camp is approximately 54 miles from Phoenix.

Briefly the geological structure is a series of pre-Cambrian sediments recrystallized by dynamic metamorphism into an intensely foliated schist. Subsequently the schist was intruded by acidic magmas of the granite type. These intrusions show evidence of partial absorbption of schist in spots. Veins are true fissures cutting across the schistosity at a low angle.

The predominant gangue mineral is quartz. The ore minerals are pyrite, sphalerite, galena, cerargyrite, proustite, pyrargyrite, argentite, native silver and wolframite. The wolframite was the first to crystallize out and beautiful examples of the succession of deposition are to be found with the wolframite crystals conspicuously on the walls.

The veins of the district are usually narrow but long. The Tip Top vein, which is most extensively explored has a continuous ore shoot of 600 feet in length which has been developed to a depth of 800 feet. There is no other such extensive development in the whole district. The vein in this shoot had an average width of thirty inches.

Pertinent facts regarding the general geology, vein structure etc are to be found in U.S.Geol.Survey Bulletin No. 782 (Waldemar Lindgren 1926) at pages 3, 12, 15, 16, 22, 23, 24, 28, 30, 31, 32, 41, 42, 43, 44. The Tip Top district in particular is described pages 179-182.

Exhaustive reports have been made by H.E.Armitage, (1911), G.W.Alsdorf (1916) J.S.Coupal (1916 and 1934) E.M.Clarke (1918) Harvey A.Sill (1927) and several others.

There are no maps of the underground workings available neither are there and very definite sampling records. However, in the Tip Top camp there is an old assay record book of Frank E.Wager, who was custom assayer in the camp from 1887 to 1920. This record contains many interesting entries concerning the old Tip Top mine but it is by no means a complete assay record of the property. There is one entry of exceptional interest entered in 1888. It is a Tip Top sample marked "800" assaying 265 ounces silver. If this sample came from the 800 level as might be indicated it is the only known sample from that level. This lengthy record shows that after the original operators ceased to work the property the average ore taken out by leasers was 360 oz silver. It also brings out the range of values in both chloride and sulphide ores. The former are strictly near-surface ores and range from 70 to 2100 ounces silver. The sulphide ores varied between 121 and 1760 ounces silver. In general the record is very interesting but is of no immediate value as a guide to what values may be expected to be found standing or as stope fill in the mine now.

The Tip Top vein consists of two parallel veins, at least in the outcrop, along the surface. The major development is on the foot-wall vein. The hanging-wall vein has been stoped down only 150 feet. On the foot-wall vein, above the 200 level (adit) there are several blocks of low grade ore left which are said to assay 40 oz silver and 0.80% tungstic acid.

Under the heading "Ore in Sight" in the Harley A. Sill report is the following paragraph:

> " There are three dumps on the Tip Top property aggregating about 20,000 tons that will average approximately eight ounces silver and .23% tungsten (WO_3). These dumps are easily available for milling and should yield a profit. In addition to this tonnage I have estimated 10,000 tons in stope fillings above the 200 foot level averaging slightly more than ten ounces in silver and .36% tungsten. There is also a small tonnage of ore in place above the present water level which will add somewhat to the ore reserves. I could not definitely determine the amount but I can conservatively estimate several hundred tons. The tonnage that can be included from the workings below the present water level cannot be given but if reliance can be placed in the statements of those who have worked in the mine and from reports of former officials of the company incharge of the development, this area should add materially to the above reserves."

In the Coupal report of 1917 it is stated:" there is approximately 20,000 tons of ore in stopes above the 200' level, part of which was drawn and sampled by a series of five chutes so placed as to allow drawing of the ore. The result of this sampling gave 14.1 oz silver and 0.20% tungstic acid." Regarding the stopes above the 200 level Mr. Coupal says: "there are several pillars of unmined ore left standing. I have estimated this unmined ore at 1000 tons. There is, in addition, about 8400 tons of stope fill in the area above the 200 level."

Though there is no definite record to that effect it is quite reasonable to immagine that the dumps, sometime, have been sorted after a fashion. The mention of "fines" and "coarse" in the Wager assay record book would indicate that probably some sorting had been done.

Some of the dump ore has been milled since 1936 but no very great amount. So far as is known no ore has been taken from within the mine in a great many years.

The occurrence of tungsten is of some interest. So far as is known no effort has ever been made to recover tungsten from the milling ores. Some years ago high-grade tungsten in small lots was sorted out and shipped from the dumps. In the original operations the tungsten was not looked on as anything of value, in fact it had no value then. According to a report by a former foreman who was at the mine during its most productive period the wolframite was believed to be zinc blende and many blocks containing rather considerable quantities of wolframite were left standing in the mine. A number of fairly large specimens of tungsten ore, known to have been taken out many years ago have been seen. In some of these the wolframite was at least 60% by volume. It is quite possible that a considerable recovery of tungsten might be made from the old stopes.

It would seem that there is not less than ten to fifteen thousand tons of ore available in the dumps and in stopes above the 200 level which can be milled profitably. The high grade is known to have been stoped out from the 200 down to the 500, but when one considers the costs of those days, particularly

transportation, it is reasonable to expect that there must be a considerable tonnage of ore left which was too low grade for profitable treatment in those days which could be handled now with modern equipment, both for mining and for milling.

In addition to the ore referred to above each report makes some brief mention of the parallel Joker vein. An examination of the limited workings on the Joker leads one to believe that this vein possibly may be as extensive and productive as the original Tip Top vein. It might fall short somewhat in length as compared with the Tip Top but there is no reason why the values should not persist to an eaqual depth. This vein lies about two hundred feet to the east of the Tip Top vein. It is said that a crosscut was started from some point below the 200 level towards the Joker but never finished because of the very hard character of the rock. With air drills it would be a simple matter to complete this crosscut and from that level explore the Joker vein.

In 1936 the Tip Top property was under lease to La Bajada Exploration, Engineering and Equipment Corporation. This company built a mill on the Tip Top patented claim, the top of the mill being at the level of the 200 tunnel, an adit running north on the Tip Top vein to and beyond the 800-ft shaft. On the west side of the mill was a dump, material brought out through the adit but nothing is known of the origin of this material.

This mill has a rated capacity of 50 tons per twenty-four hours. The equipment consists of a jaw crusher, Challenge feeder, ball mill, two Diester tables, six cell Sub A flotation unit, thickener, filter and accessories. It is powered by a 4 cylinder Atlas Imperial full Diesel engine which is direct connected to a G.E. 3 phase 60 cy 440 volt 90KW generator.

Water for the mill was obtained from the Tip Top shaft. A geared triplex pump, motor driven was installed in the shaft and lowered as the water was taken down. There is no record of the amount of water pumped but it is said that if the water is used only for milling the supply would be adequate for at least two years and in event of heavier rainfall might continue to supply the mill indeffinitely.

During 1938 the writer made some investigations for La Bajada E E & E Corporation and on that occasion made an analysis of the milling operations, using such data as was available. Not all the mill records were available so the analysis covers milling operations from May 11th, 1936 to October 30th, 1936, inclusive. The tables are given below.

Table II

Total possible milling hours	4176.00
Total hours mill operated	2937.14
Per cent total operating time	65.59

Operations by Months

Month	Total Possible Hrs	Total Hours Running	Percent Running time.
May	504.00	258.65	57.67
June	720.00	322.75	44.82
July	744.00	421.75	55.68
August	744.00	562.00	75.53
September	720.00	572.25	79.47
October	744.00	601.74	80.74

Table III

Distribution of pay-roll:

Milling,	$338.33
Mining	491.16
Mill repairs	106.11
Crushing	3.00
Truck	33.31
Miscellaneous	91.00
Superintendent	49.98
Burro haul	205.04
Total	1318.27
Less mining and truck	793.80
Tons milled	370.20
Total hours milling	201.00
Total hrs down for engine repairs	127.00
% total time for repairs	35.28

Average cost of milling ore based on above distribution of the pay-roll ($793.80 / 370.20 T) gives $2.144 per ton milling cost.

This cost figure is exclusive of overhead, taxes, insurance, sate compensation insurance, supplies, Social Security etc. It is estimated that such items would increase the cost by about 16%.

The above figures are based on distribution sheets covering the pay-roll from June 16th, 1937 to June 30th, 1937 inclusive, the only data available at the time of the investigation.

The mill will require some rehabilitation. A secondary crusher is needed between the jaw crusher and the fine grinding unit. This would surely increase the capacity of the mill. There are other refinements to be made about the mill as of 1938. Undoubtedly the building will need certain repairs now in addition to the work on the machinery.

From the data in hand it would seem that the Tip Top mine is a potential source of from ten to fifteen tons of ore already mined, either on the dumps or as stope fill. That there is probably a considerable tonnage of mill ore still standing in the mine above the 500-ft level. (La Bajada retimbered the shaft to the 500 level in 1936 with new O.P.) and that there is a reasonable expectancy for additional ore in the Joker as well as other parts of the Tip Top holdings. In addition there is a mill, of a sort, already on the property and a sufficient supply of water on the property.

Respectfully submitted,

A. L. Flagg

Phoenix, Arizona,
September 20th, 1940.

PRELIMINARY SURVEY

REPORT ON SOURCES OF CUSTOM MILLING ORES IN TIP TOP DISTRICT

Within a radius of three miles of the Tip Top mine there are six groups of mining claims that are in shape to supply milling ores in varying quantities. On the topographical map, I have shown the location of these groups using different colors to show each group. A description of these groups is not possible in detail but the following will give an idea of the milling ore available from each.

FOURTH OF JULY GROUP
Oscar Wager, Owner

Distance from Tip Top	Name of Claim	Type of Ore	Average per ton	Possible Production
3/4 mile	4th of July	Silver	20-30 oz	25T Stoped must be put in shape.
1/2 mile	"76"	Silver	20-50 oz	25 tons
1/2 mile	Water Witch	Silver		No development.
1 mile	El Dorado	Silver	20-50 oz	25 tons
1 mile	Arizona	Silver	15-40 oz	25 T needs devel.

There are two other claims in this group that are undeveloped. This group could be relied upon to supply a minimum of 25 tons of 25 oz silver milling ore per day. The ore from this group would be almost identical in character to that of the Tip Top, and so would present no difficult metallurgical problem.

OSCAR WAGER GROUP.
Oscar Wager, Owner.

2 miles	Wisconsis	Silver	20 oz	25 T Stopes need development
2 miles	Arnold	Silver		no development
2½ miles	Williams	Silver		" "
2½ miles	Marks	Silver		" "

These ores are very similar to those of the Tip Top so there would be no problem in their handling. This group could not be relied upon for steady production as it is not opened up sufficiently to have any ore blocked out. From workings on veins it appears that good bodies of mill ore can be developed.

FOY GROUP
Lester and Herron, Owners.

2½ miles	Carbonate Queen	Silver	15-50 oz	25 tons needs some development
3 miles	Foy Claims 5 in number*	Silver	15-50 oz	25 tons

* On these five claims there are numerous workings caved in and considerable work would be required to put them in shape.

This group has produced some $140,000 in high grade shipping ore. It is estimated that there are 700 tons of 25 oz silver ore on the dump. The claims of

this group are located on the Midway vein. This group could be depended upon to supply a minimum of 20 tons of mill grade ore daily. The ore is the same type as the Tip Top ore.

SILVER MUSEUM GROUP
Owned by Johnson and Bessie Morgan

Distance from Tip Top	Name of Claim	Type of Ore	Average Value	Possible prod. per day.
2½ miles	Gold Coin #1	Silver	20-40 oz	10 tons
2½ miles	" " 2	Silver	20-40 oz	10 tons
3 miles	Swilling	Silver	20-40 oz	10 tons

The Swilling is one of the oldest mines in the district and together with the Gold Coin No.1 and 2 are now under lease to and are being developed by a Los Angeles company. They are sinking a shaft and are getting ready for production. The ores are the same type as those of Tip Top so present no problem. This group could be relied upon to supply a minimum of 20 tons of mill grade ore daily. Past production $250,000 mainly silver.

LITTLE JOE GROUP
Mrs. Berger, Owner

3 miles	Little Joe	Gold-Silver	$20.00	25 tons

This property is shipping a car load of ore each week and have so far shipped seven cars. They are building up a large tonnage of mill grade ore. The ores from this mine are the same type as Tip Top and do not present any problems. This property could be relied upon to produce 15 tons of mill ore daily.

SULLIVAN GROUP
Bauer and Johnson, Owners.

3 miles	Sullivan	Gold-silver	$15-$25	25 tons
3 miles	DeGendt	Gold-silver	" "	uncertain
3 miles	Bauer	Gold-silver	" "	uncertain

These ores differ from the Tip Top ores considerably. The values are mainly in gold. They present no problem as the free gold could be plated and the sulphides, gold and silver, floated. This group could probably supply 15 tons of mill grade ore daily.

SUMMARY OF MILLING ORES AVAILABLE.

Fourth of July	25 tons
Foy Group	20 tons
Sullivan-Museum	20 tons
Little Joe	15 tons
Sullivan Group	15 tons
Total	95 tons

The above shows that the district is now capable of producing 95 tons mill grade ore daily, after a period of sixty days. With some months of development this tonnage estimate would probably be materially increased. It is my opinion that within six months from the time a mill is put in operation a constant supply of 100 tons per day of good grade mill ore will be assured.

In addition to the foregoing there are four groups of claims that are owned by Mr.J.B.Johnston,These are not considered with the foregoing because of the difference in the type of ores and the metallurgical problems involved. A brief description of the Johnston group follows:

1.Antimony Group. Has some silver production.Good virgin ground. Ore same type as Tip Top.

2.Tungsten Group. Shipped tungsten during war.Has good undeveloped showing of gold and silver.

3.Great Cross-cut Group. Will furnish 50 tons per day at present of gold and silver mill grade ore.

4.Gold Hill Group. Has produced gold ore of mill grade.Can furnish 25 tons per day now by extension of exposed ore breasts in the tunnels by development only.With six months development work would be in shape to produce 100 tons daily.This group would add materially to the tonnage of mill grade ores available in the section.The problem of handling these ores should not be too difficult.

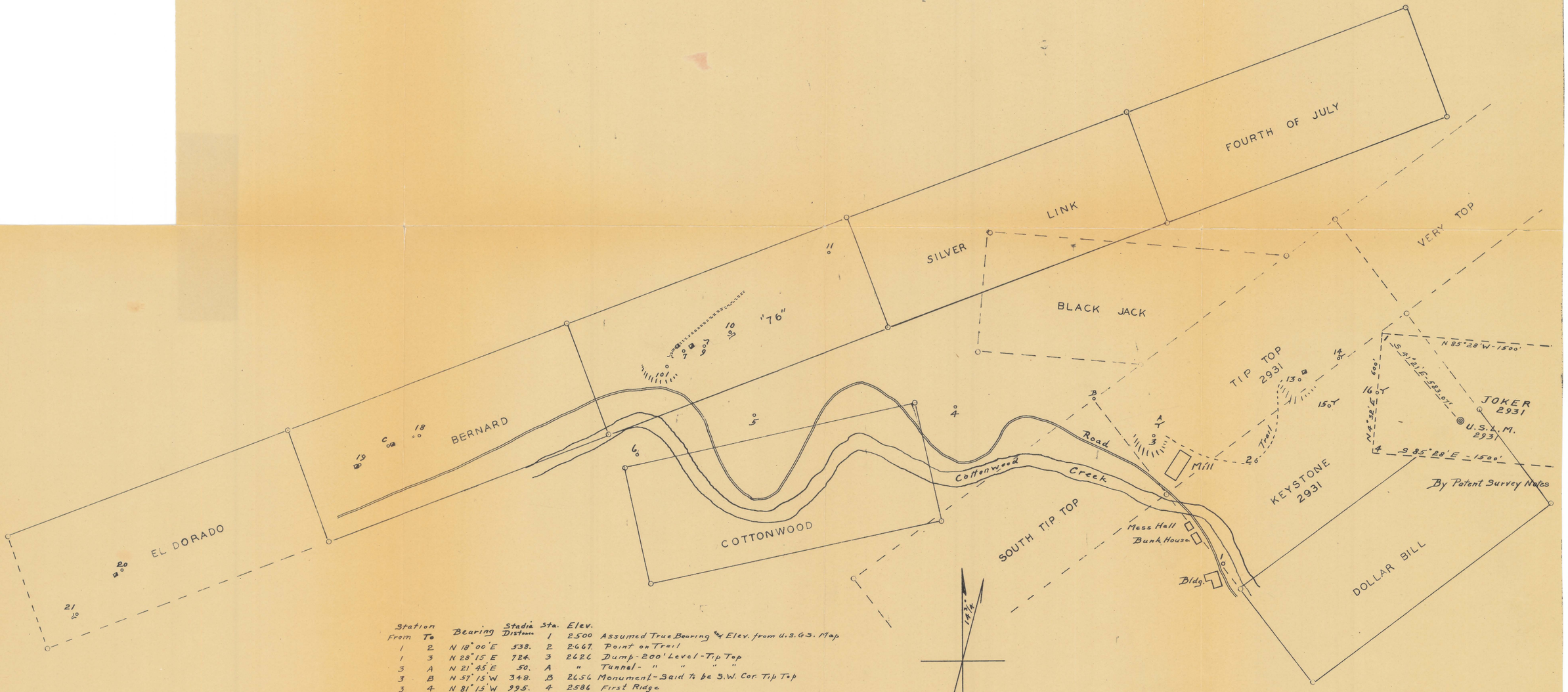
CONSLUSION

There can be no doubt but that the custom milling ores available in this district are sufficient in quantity and value to warrant the installation of milling equipment to handle them. To equip to handle custom ores at the mill under consideration for the Tip Top mine would,in my opinion,be worthy of mature consideration.

Respectfully,

(Signed) S.A.Shappell

Note by A.L.Flagg,September 20,1940. There has been some changes in ownership of the claims as given in the above report. The Fourth of July Group,in part,is the property of La Bajada E E & E Corporation. The Silver Museum Group is not under option to California people. While I have not visited all of the claims listed I am familiar with some of them. I believe that the Foy Group will be able to produce all of 25 tons daily. Some shipments have been made recently and an inspection of the ground justifies the belief that it can be developed into a good tonnage producer. In general I am inclined to think that the estimated production from other claims is much too optimistic. However,with adequate development they will undoubtedly produce considerable ore. Little Joe was still shipping in late July but ceased in August.The trucking cost is too high but the group is a potential producer of mill ore steadily. There is certainly every reason to believe that a substantial tonnage of custom ore can be had when a mill is prepared to treat it.



Station From	Station To	Bearing	Stadia Distance	Sta.	Elev.	
	1			1	2500	Assumed True Bearing & Elev. from U.S.G.S. Map
1	2	N 18°00'E	538.	2	2667.	Point on Trail
1	3	N 28°15'E	724.	3	2626	Dump - 200' Level - Tip Top
3	A	N 21°45'E	50.	A	"	Tunnel - " " " "
3	B	N 57°15'W	348.	B	2656	Monument - Said to be S.W. Cor. Tip Top
3	4	N 81°15'W	995.	4	2586	First Ridge
4	5	S 88°03'W	1000.	5	2718.	Second "
5	6	S 72°01'W	614.	6	2636	Ridge So. of "76"
6	101	N 19°11'E	460.	101	2647.	I.P. Dump - "76" (Sta. 7 - Elev. 2703.7')
7	18	S 72°53'W	1377.	18	2718.	Outcrop - Bernard Claim
7	9	N 75°48'E	103.	9	2761.	Dump & Cut - "76"
9	10	N 63°33'E	146.	10	2831.	Cut - "76"
10	11	N 51°48'E	633.	11	2847.	Ridge on Strike of "76"
18	C	S 72°53'W	168.	C	2700?	Old Bernard Shaft - Said to be 140' Deep
18	19	S 64°53'W	333.	19	2729.	New " " " " " 110' "
19	20	S 44°41'W	1290.	20	2740.	El Dorado " " " " 180' "
20	21	S 46°01'W	311.	21	2770.	Cut "
2	13	N 28°24'E	460.	13	2764.	Main Incline Shaft - Tip Top - 850' "
2	14	N 39°00'E	657.	14	2773.	Small Tunnel
2	15	N 52°55'E	452.	15	2718	" "
2	16	N 60°35'E	693	16	2872.	W.C.E. - Joker (Patented Claim) - M.S. 2931
101	7	N 46°38'E	114.6	7	2703.7	See Underground Survey Map.

MINING CLAIMS - APPROX - ADDED BY A.L. FLAGG 9-20-1940

— LA BAJADA

GENERAL PLAN OF THE LA BAJADA PROPERTY

TIP TOP MINING DISTRICT

YAVAPAI COUNTY ARIZ.

SEC. 3 to 10 T 8 N R I E

SCALE:- 1 IN = 300 Ft.

STADIA SURVEY BY:- H. D. Phelps

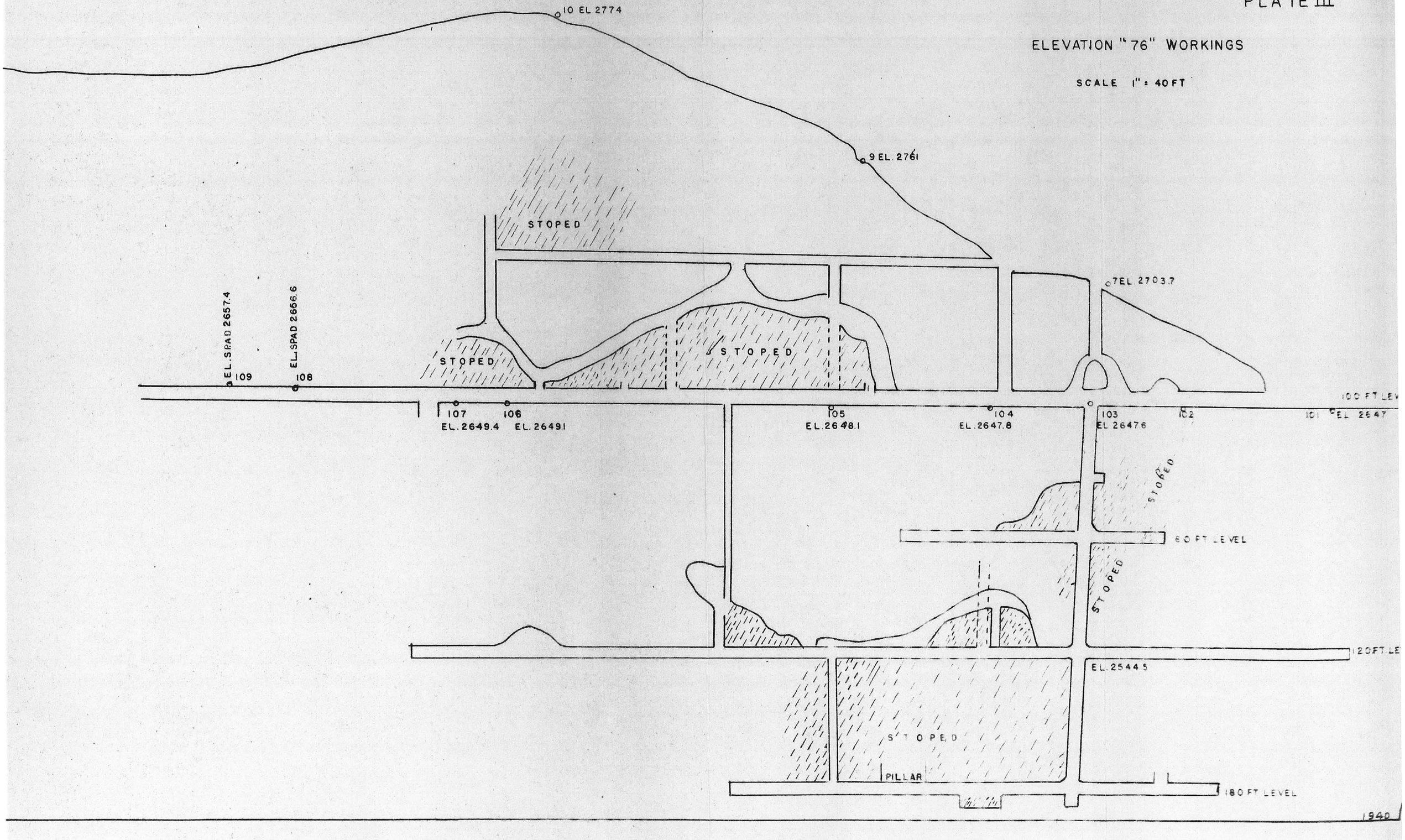
REGISTERED PROFESSIONAL ENGINEER.

JULY - 1939 PRESCOTT, ARIZ.

PLATE III

ELEVATION "76" WORKINGS

SCALE 1" = 40 FT



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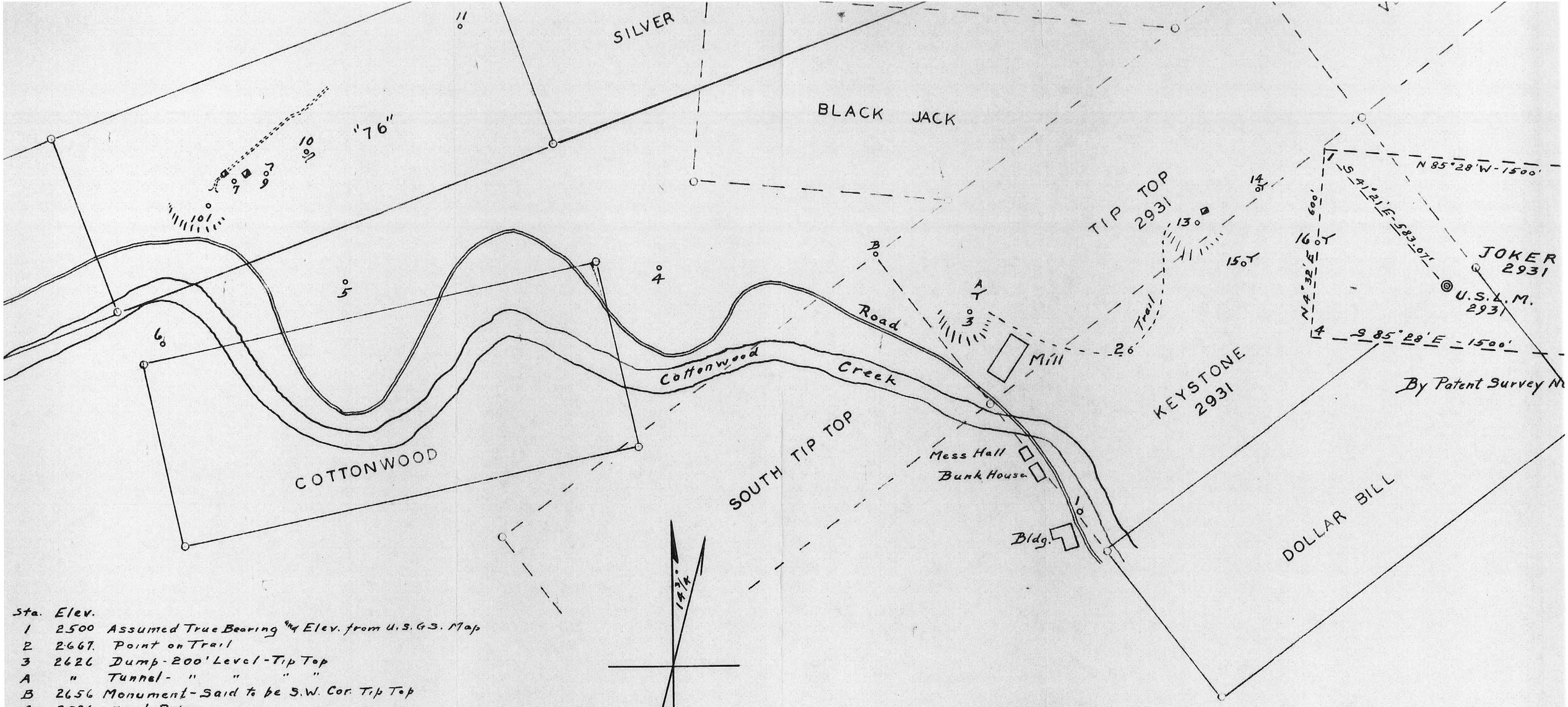

Sta.	Elev.	
1	2500	Assumed True Bearing & Elev. from U.S.G.S. Map
2	2667.	Point on Trail
3	2626	Dump - 200' Level - Tip Top
A	"	Tunnel - " " " "
B	2656	Monument - Said to be S.W. Cor. Tip Top
4	2586	First Ridge
5	2718.	Second "
6	2636	Ridge So. of "76"
101	2647.	I.P. Dump - "76" (Sta. 7 - Elev. 2703.7')
18	2718.	Outcrop - Bernard Claim
9	2761.	Dump & Cut - "76"
10	2831.	Cut - "76"
11	2867.	Ridge on Strike of "76"
C	2700?	Old Bernard Shaft - Said to be 140' Deep
19	2729.	New " " " " " 110' "
20	2740.	El Dorado " " " " 180' "
21	2770.	Cut "
13	2764.	Main Incline Shaft - Tip Top - 850' "
14	2773.	Small Tunnel
15	2718	" "
16	2872	W.C.E. - Joker (Patented Claim) - M.S. 2931
7	2703.7	See Underground Survey Map.

MINING CLAIMS - APPROX -
ADDED BY A.L. FLAGG
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— LA BAJADA

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SEC. 3 to 10 T 8 N R 1 E
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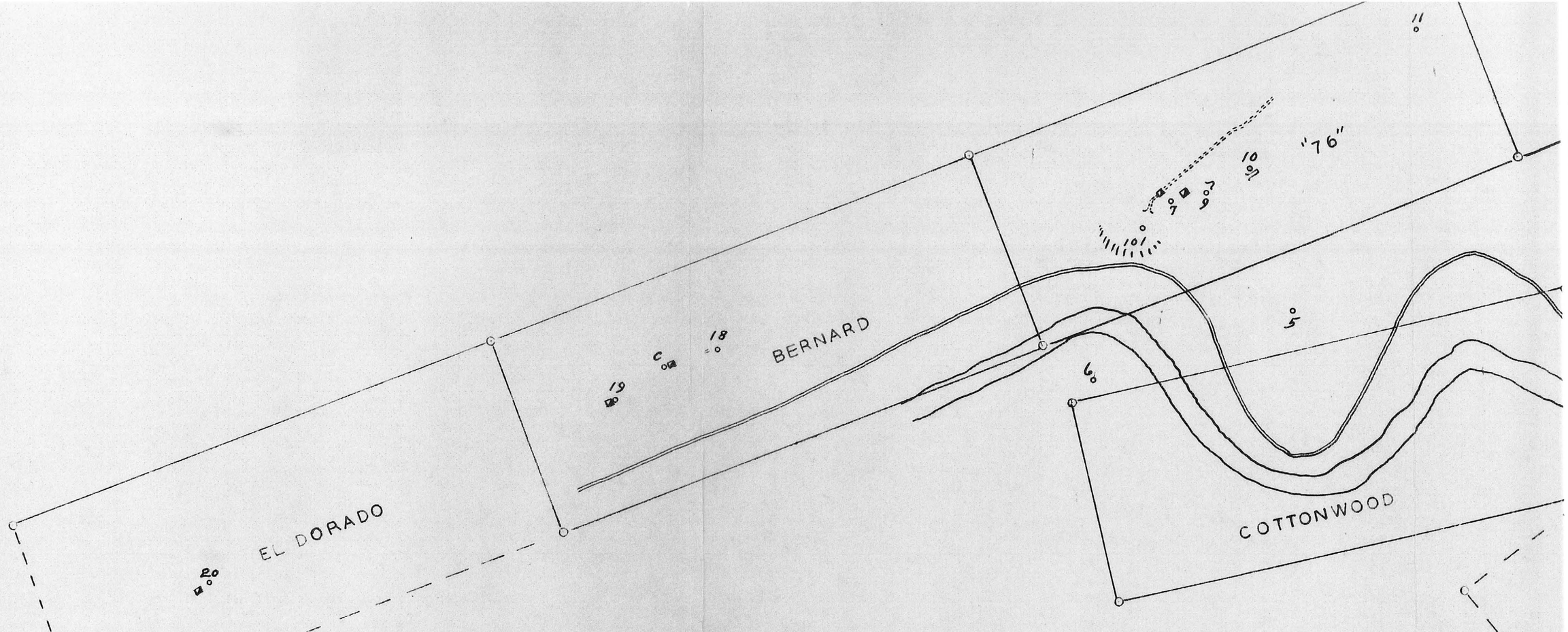
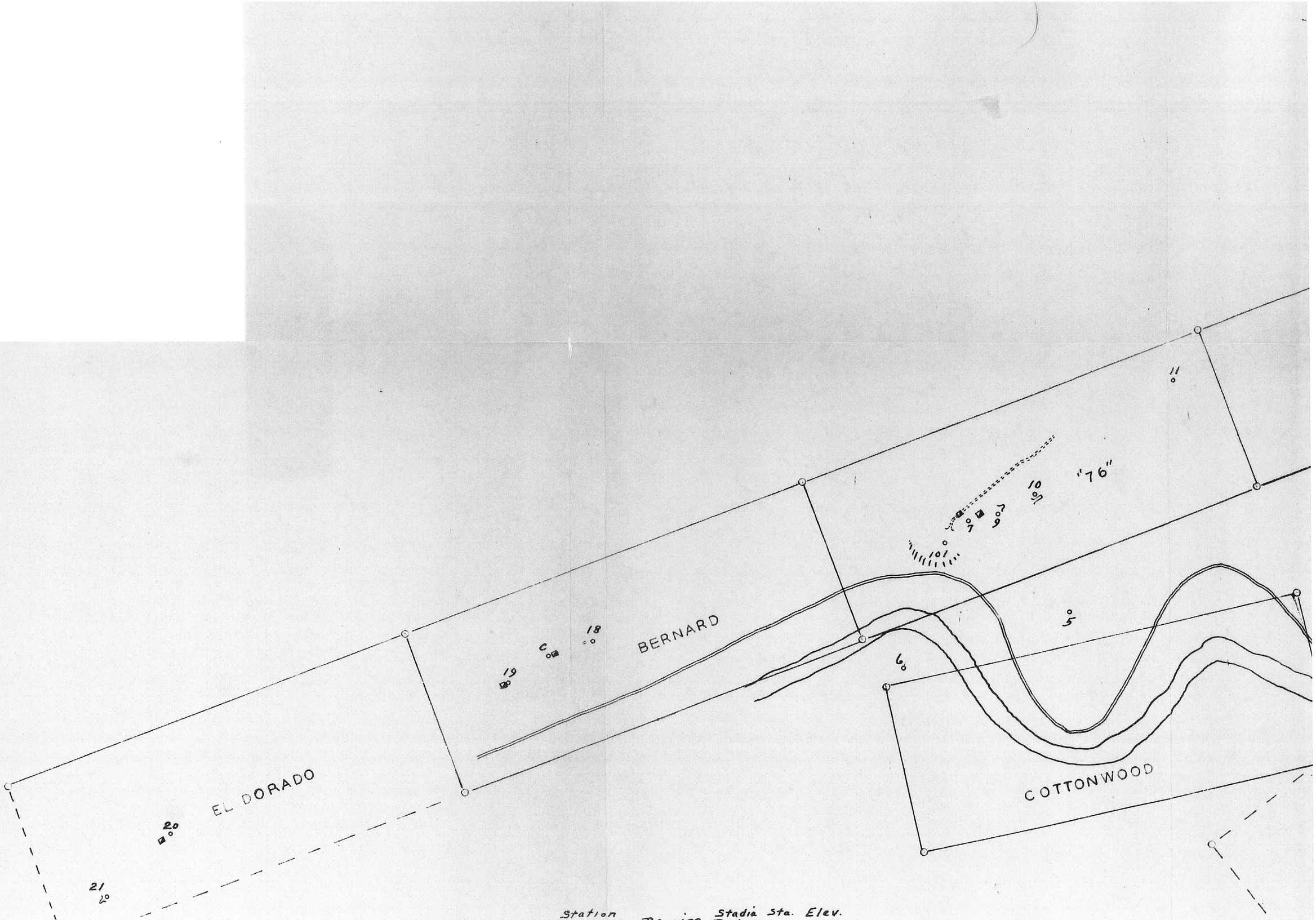


Station From	Station To	Bearing	Stadia Distance	Sta.	Elev.	
				1	2500	Assumed True Bearing & Elev. from U.S.G.S. Map
1	2	N 18° 00' E	538.	2	2667.	Point on Trail
1	3	N 28° 15' E	724.	3	2626	Dump - 200' Level - Tip Top
3	A	N 21° 45' E	50.	A	"	Tunnel - " " " "
3	B	N 57° 15' W	348.	B	2656	Monument - Said to be S.W. Cor. Tip Top
3	4	N 81° 15' W	995.	4	2586	First Ridge
4	5	S 88° 03' W	1000.	5	2718.	Second "
5	6	S 72° 01' W	614.	6	2636	Ridge So. of "76"
6	101	N 19° 11 E	460.	101	2647.	I.P. Dump - "76" (Sta. 7 - Elev. 2703.7')
7	18	S 72° 53' W	1377.	18	2718.	Outcrop - Bernard Claim
7	9	N 75° 48 E	109.	9	2761.	Dump & Cut - "76"
9	10	N 63° 33 E	146.	10	2831.	Cut - "76"
10	11	N 51° 48 E	633.	11	2867.	Ridge on Strike of "76"
18	C	S 72° 53' W	168.	C	2700?	Old Bernard Shaft - Said to be 140' Deep
18	19	S 64° 53' W	333.	19	2729.	New " " " " " 110' "
19	20	S 66° 41' W	1290.	20	2740.	El Dorado " " " " 180' "
20	21	S 46° 01 W	311.	21	2770.	Cut "
2	13	N 28° 24 E	460.	13	2764.	Main Incline Shaft - Tip Top - 850' "
2	14	N 39° 00' E	657.	14	2773.	Small Tunnel
2	15	N 52° 55 E	452.	15	2718	" "
2	16	N 60° 35 E	693	16	2872	W.C.E. - Joker (Patented Claim) - M.S. 2931
101	7	N 46° 38' E	114.6	7	2703.7	See Underground Survey Map.

0 Ft. 100 Ft 200 Ft



Station	Bearing	Stadia Distance	Sta. Elev.	Assumed True Bearing & Elev. from U.S.G.S. Map
			2,500	

FOURTH OF JULY

SILVER LINK

BLACK JACK

VERY TOP

"76"

TIP TOP 2931

JOKER 2931

U.S.L.M. 2931

N 85°28'W-1500'

S 4°21'E-583.0'

N 4°32'E 600'

S 85°28'E - 1500'

By Patent Survey Notes

Cottonwood Creek Road

Trail

Mill

KEYSTONE 2931

COTTONWOOD

SOUTH TIP TOP

Mess Hall

Bunk House

Bldg.

DOLLAR BILL

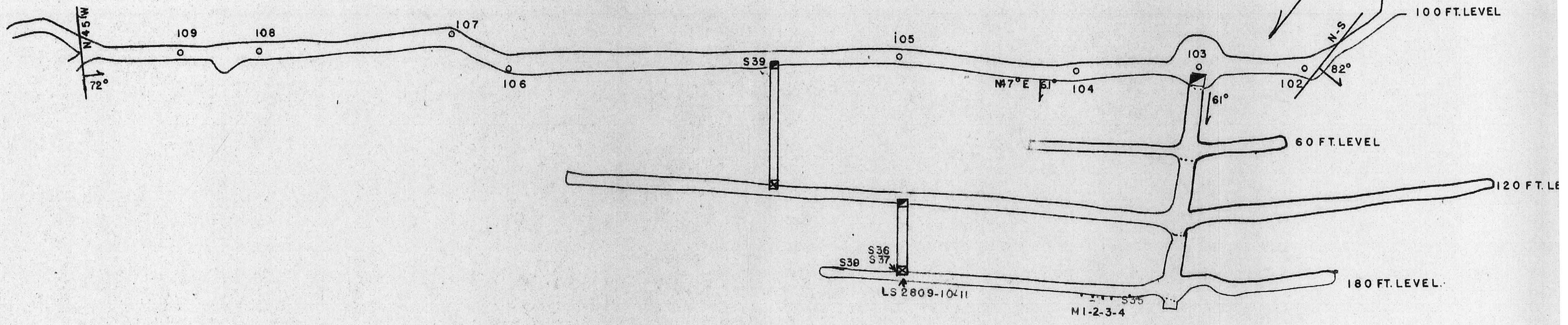
14 3/4°

Elev.

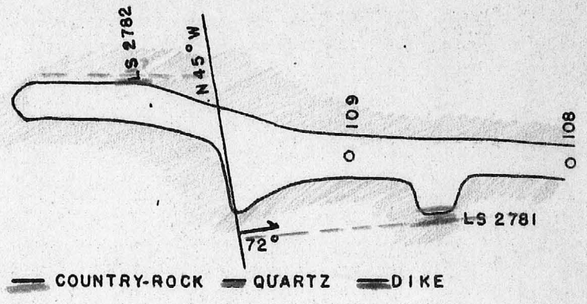
PLATE IV

PLAN OF "76" WORKINGS

SCALE 1" = 40 FT.



POSSIBLE EXPLANATION OF CONDITIONS BETWEEN STA. 108 AND FACE



SAMPLES

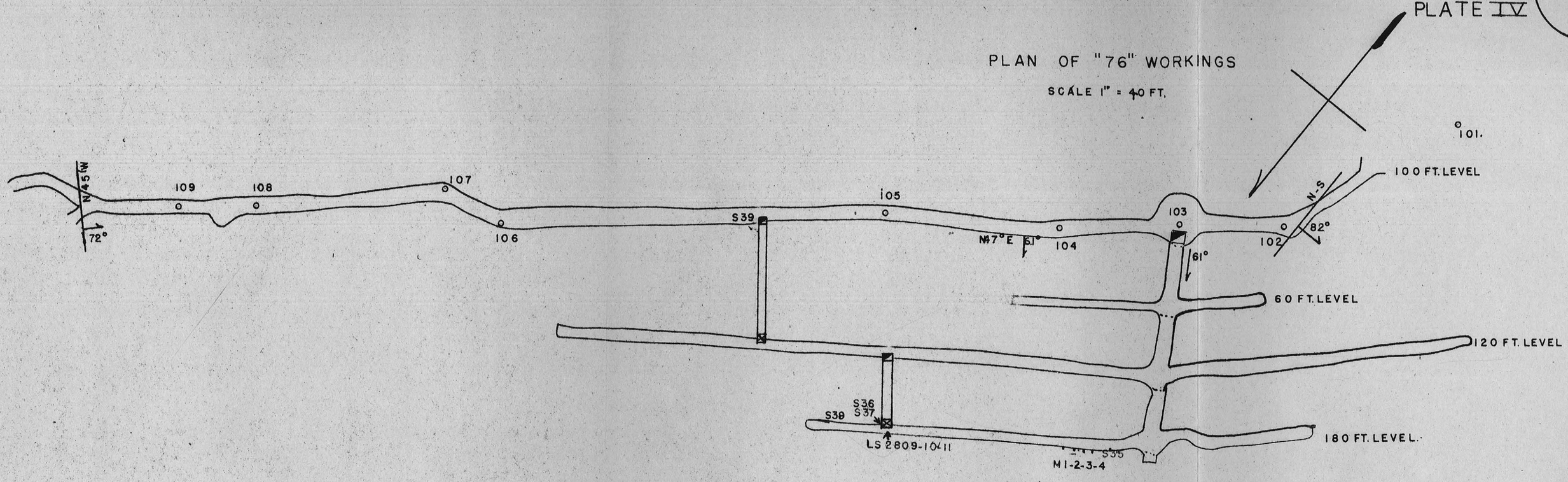
NUMBER	WIDTH	OZ SILVER
M-1	1-1 2"	198.12
M-2	2"	104.12
M-3	3"	6.32
M-4	4"	31.40
S-35	24"	13.86
S-36	10"	8.00
S-37	10"	16.80
S-38	10"	4.68
S-39	12"	43.00

1940

PLATE IV

PLAN OF "76" WORKINGS

SCALE 1" = 40 FT.



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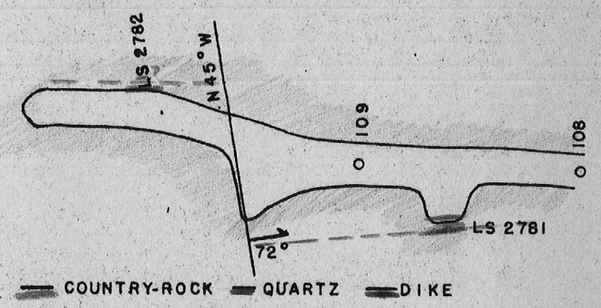

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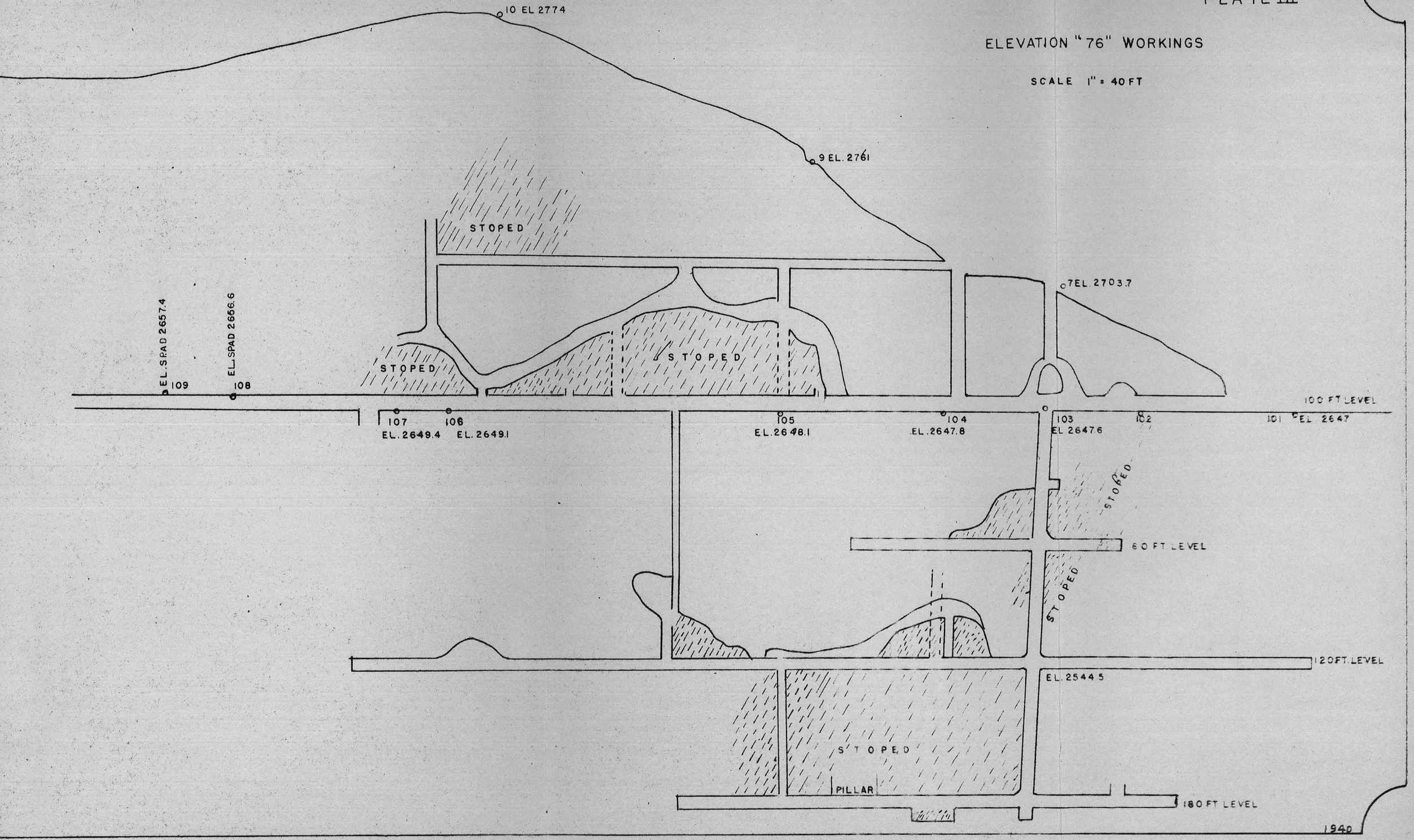
1940

PLATE III

ELEVATION "76" WORKINGS

SCALE 1" = 40 FT



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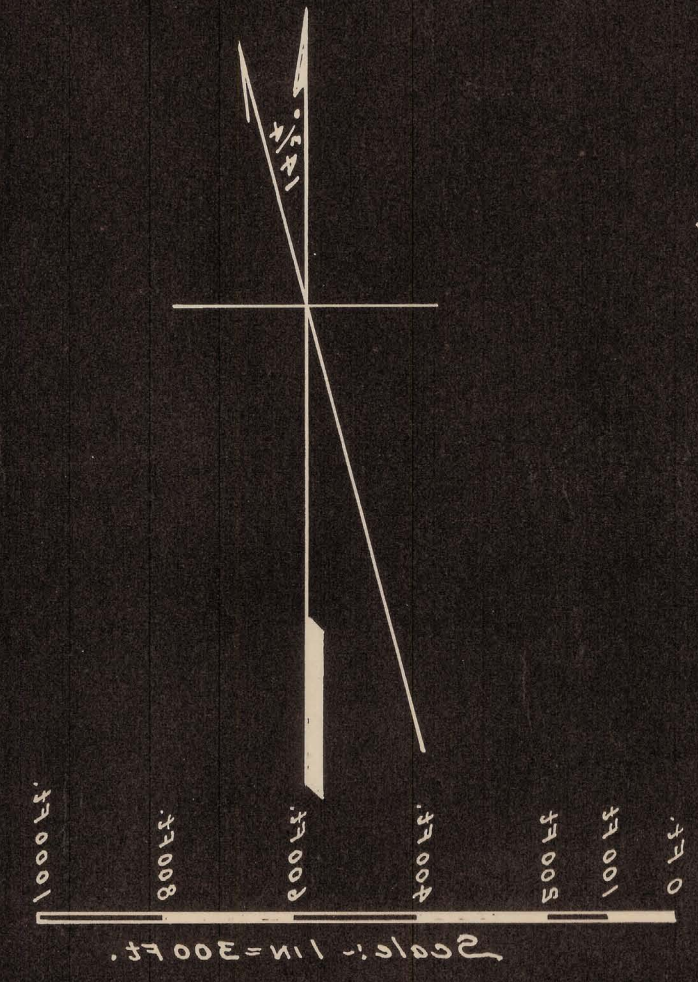

Station From	Station To	Bearing	Stadia Distance	Sta.	Elev.	
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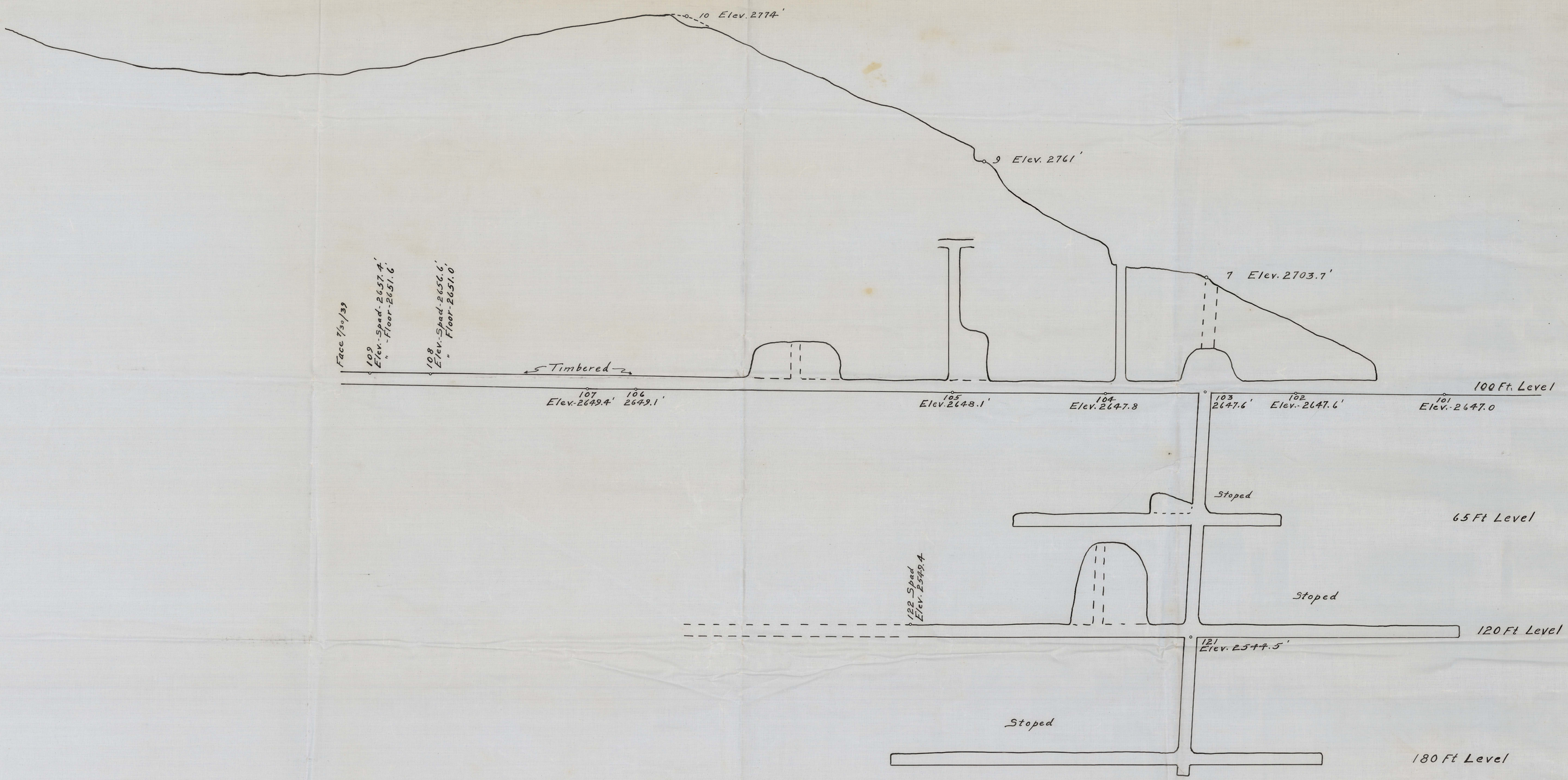
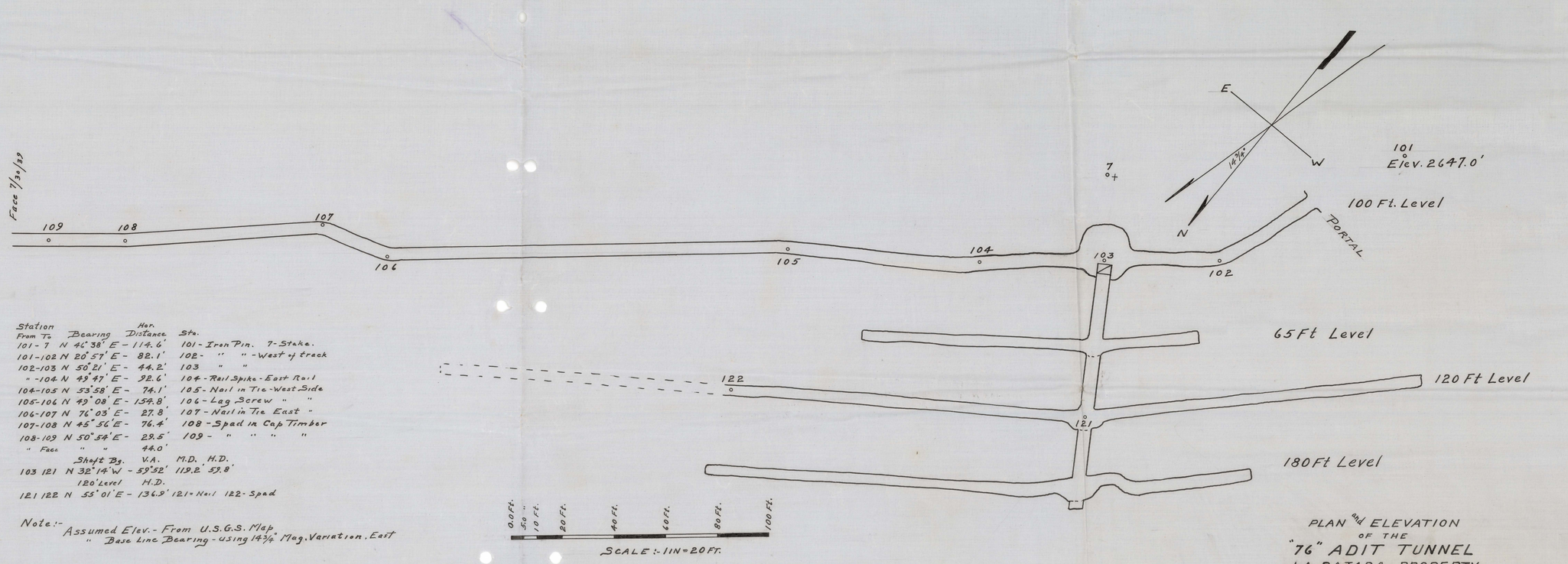
GENERAL PLAN
OF THE
LA BAJADA PROPERTY
TIP TOP MINING DISTRICT
YAVAPAI COUNTY ARIZ.
SEC. 3 & 10 T 8 N R 1 E
SCALE:- 1 IN = 300 FT.

STADIA SURVEY BY:- H. S. Phelps
REGISTERED PROFESSIONAL ENGINEER.
JULY - 1939 PRESCOTT, ARIZ.





Station From	To	Bearing	Hor. Distance	Sta.
101	7	N 41° 38' E -	114.4'	101 - Iron Pin. 7 - Stake.
101	102	N 20° 57' E -	82.1'	102 - " " - West of track
102	103	N 50° 21' E -	44.2'	103 " "
"	104	N 43° 47' E -	92.6'	104 - Rail Spike - East Rail
104	105	N 53° 58' E -	74.1'	105 - Nail in Tie - West Side
105	106	N 49° 08' E -	154.8'	106 - Lag Screw " "
106	107	N 76° 03' E -	27.8'	107 - Nail in Tie East "
107	108	N 45° 56' E -	76.4'	108 - Spad in Cap Timber
108	109	N 50° 58' E -	29.5'	109 - " " " "
"	Face	" "	44.0'	
	Shaft Bg.		V.A.	M.D. H.D.
103	121	N 32° 14' W -	59° 52'	119.2' 53.8'
	120' Level		H.D.	
121	122	N 55° 01' E -	136.9'	121 - Nail 122 - Spad

Note:-
Assumed Elev. - From U.S.G.S. Map
" Base Line Bearing - using 14 3/4° Mag. Variation. East

PLAN and ELEVATION
OF THE
"76" ADIT TUNNEL
LA BAJADA PROPERTY
TIP TOP MINING DISTRICT
YAVAPAI COUNTY ARIZONA
SURVEY & MAP BY:-
H. B. Phelps
REGISTERED PROFESSIONAL ENGINEER.
JULY - 1939. PRESCOTT, ARIZONA.

PLATE III

ELEVATION "76" WORKINGS

SCALE 1" = 40 FT

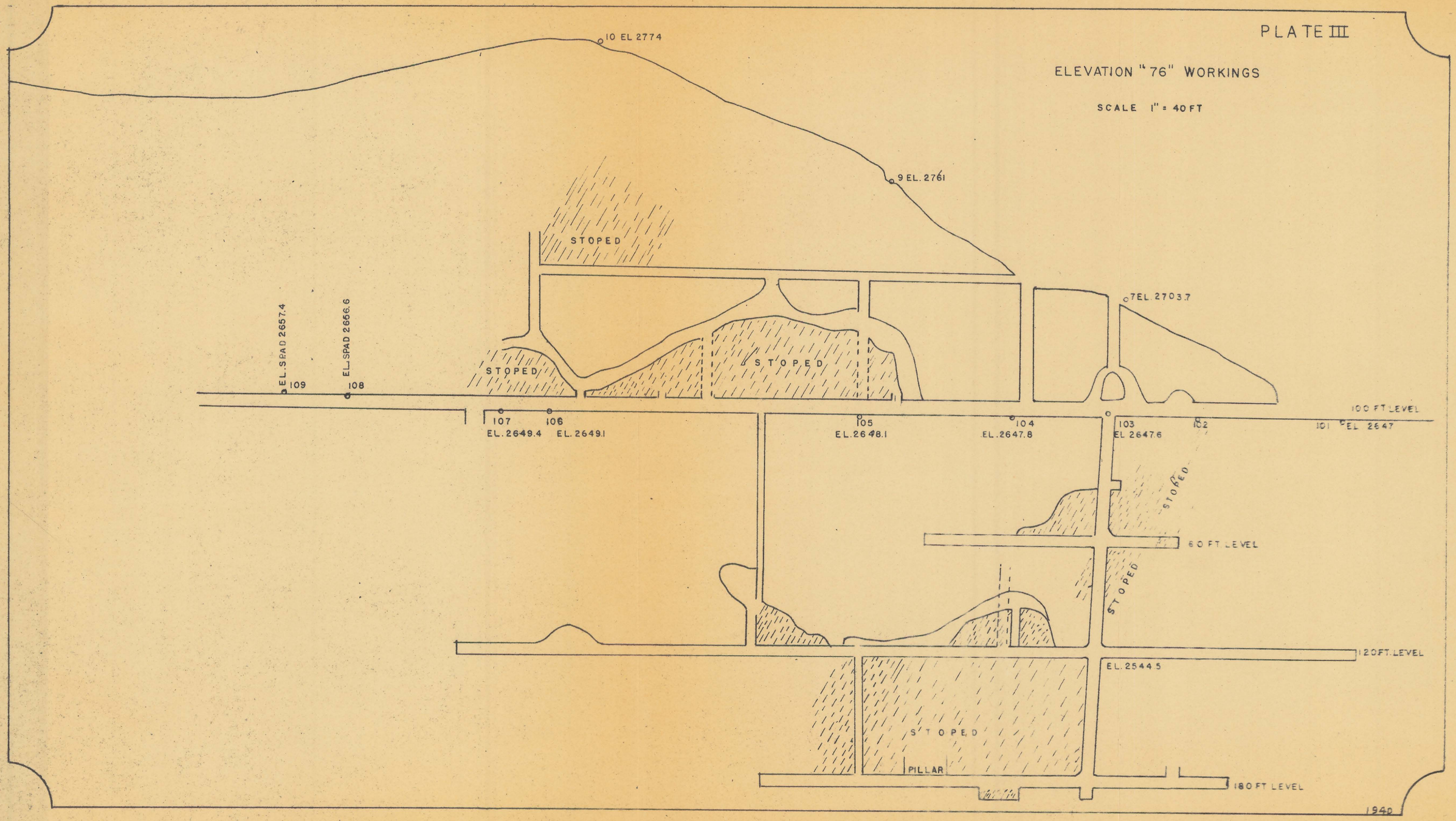
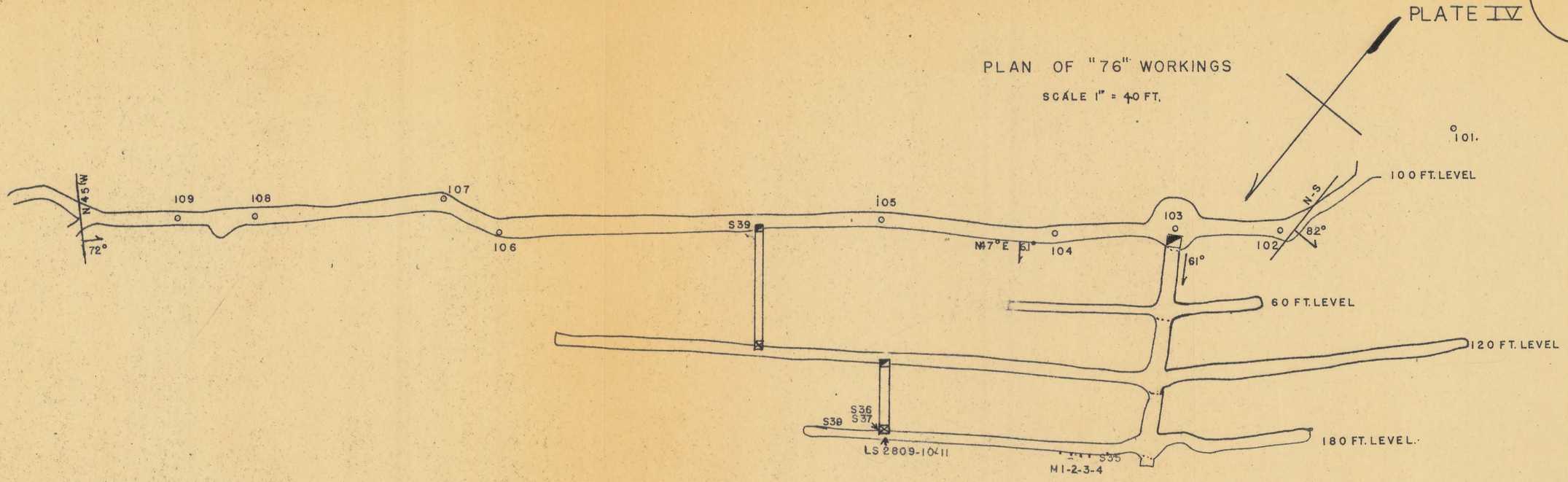


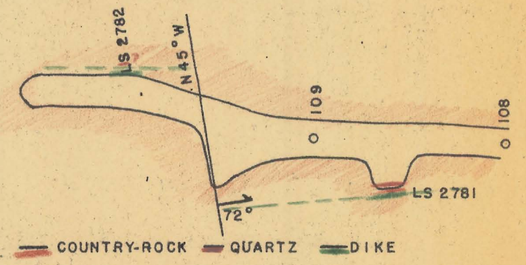
PLATE IV

PLAN OF "76" WORKINGS

SCALE 1" = 40 FT.



POSSIBLE EXPLANATION OF CONDITIONS BETWEEN STA. 108 AND FACE



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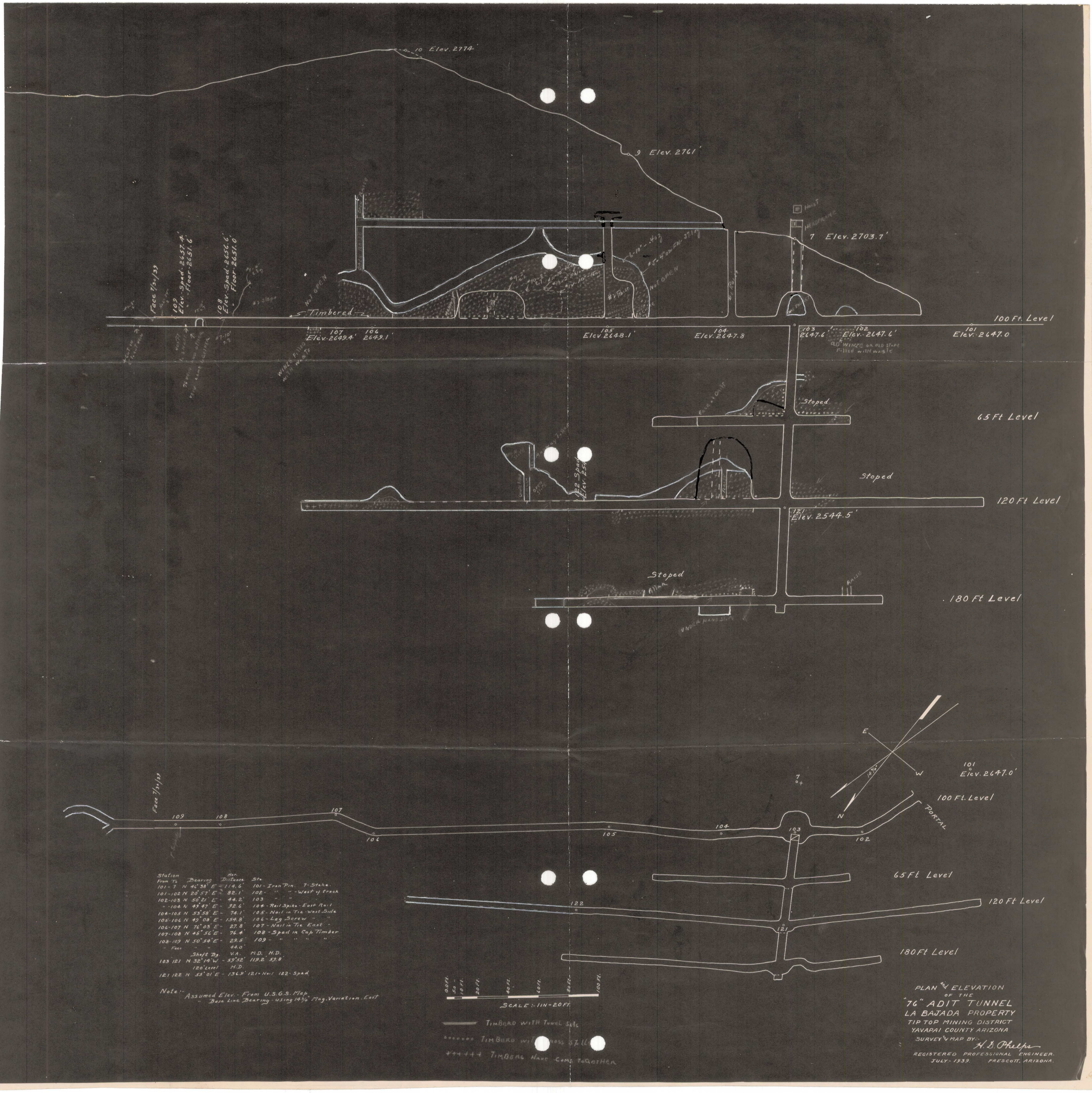

Station From To	Bearing	Hor. Distance	Sta.
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101-102	N 20°57' E	82.1'	102 - " " - West of track
102-103	N 50°21' E	44.2'	103 " "
" -104	N 49°47' E	92.6'	104 - Rail Spike - East Rail
104-105	N 53°58' E	74.1'	105 - Nail in Tie - West Side
105-106	N 49°08' E	154.8'	106 - Lag Screw " "
106-107	N 76°03' E	27.8'	107 - Nail in Tie East "
107-108	N 45°56' E	76.4'	108 - Spad in Cap Timber
108-109	N 50°54' E	29.5'	109 - " " " "
" Face	" "	44.0'	

Shaft By. V.A. M.D. H.D.
103 121 N 32°14' W - 59°52' 119.2' 59.8'
120' Level H.D.
121 122 N 55°01' E - 136.9' 121 = Nail 122 - Spad

Note:-
Assumed Elev. - From U.S.G.S. Map
" Base Line Bearing - using 14¾° Mag. Variation. East

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