Horseshoe
Old
Reports

Report on

THE HORSESHOE GOLD MINING COMPANY'S PROPERTY

Fay, Lincoln County, Nev.

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Report on

THE HORSESHOE GOLD MINING COMPANY'S PROPERTY

Fay, Lincoln County, Nev.

Field Work,

March 10th to 15th(incl),1908.

Edward R. Zalinski.

HORSESHOE MINE.

LOCATION:-

The property of the Horseshoe Gold Mining Company is located at Fay, Lincoln County, Nevada. It is situated in the Lost Range, or State Line Mountains, in what is spoken of as the Gold Springs District. The property in an air line is 2-3 miles northwest of Gold Springs, and lies over the Utah state line in Nevada.

MAP No. 1. Shows the approximate location of the Mine. It also gives the other camps in the neighborhood and is included for reference.

Modena, Utah, is the nearest railroad point, and is on the main line of the S.P.L.A.&.S.L.R.R.

The Horseshoe Mill is 16 miles by wagon road from the railroad station, and a daily stage runs from Modena to Fay. Stage fare is $5.00 a round trip, while freight and supplies are brought in at from 30¢ to 40¢ a hundred pounds. Freight to the Jenny Mine, 1½ miles from the Horseshoe, if 30¢ a hundred. Other properties in the neighborhood, are the Snow Flake, Mountain View, Buck, Ross, Wild Irish, etc. Delamar and Pioche, though some 60-80 miles away, can be seen from the property on clear days. The difference in elevation between the railroad and the mine is approximately 2400 feet. Modena is 4800 feet, while the Horseshoe Mill is 7200.

Fay is a camp of some 35-50 buildings, situated near the head of a north-south gulch on the west slope of the range. The Horseshoe mill and shaft is situated 300-400 feet above the camp, near the center of the Horseshoe #4 Claim.

PHOTO. No.1:--Looking north up the main street of Fay, shows the mill and headframe in background.

HISTORY:

Regarding the history and past production of the Horseshoe Mine. As near as can be learned the ground was located by a prospector named Ben Johnson, and first worked in 1897 or 1898. Johnson sunk a shaft on the main Horseshoe outcrop on the east side of gulch, about 125 feet north of the present working shaft. He took out some ore and drifted about 115 feet south on the 100 foot level,--also to the north. The ore was afterwards run through the mill. Greene Campbell furnished money for development and acquired a two-thirds interest. Johnson and Campbell are said to have sold to A.W.McCune. The sale took place around 1900, and McCune organized the Horseshoe Gold Mining Company. A 100-ton mill--dry crushing and cyaniding--was erected, but before this was done McCune developed the property and mined considerable ore.

McCune operated the property for eighteen months and according to mill reports treated 41,154 tons of ore. The average value of the heads was $7.60 in gold, and 1.09 ounces of silver. Tailings averaged $1.085 gold and 0.63 oz.silver. The percentage of the values saved was for gold 85.36 % and silver 38.64 % , giving a total actual production of $267,053.88 in gold and 17442.20 ounces of silver. At 50¢ an ounce the latter amounts to $8,721.10, which gives $275,774.98, as the total value of bullion produced under McCune.

Various reasons are given as to why the property was closed down. The one on which most stress is laid was that McCune had heavy mining interests in Peru, which required his attention. This undoubtedly had something to do with it. The real cause of the shut down appears to have been the exhaustion of the pay chute. However, it is but fair to say that the main ledge only was worked and little attempt was made to develope the other veins on the property.

In 1904, G.Pray Smith took a bond on the mine and worked six or seven months. He did some development besides mining and milling and also installed new machinery. Ore was hauled from the Snow Flake

and Buck properties, in which he had an interest, and put through the mill. Smith ran the west cross cut from the 200 level, 75 feet, and drove the east cross cut, 130 feet--but did not develope ore in either case. Work is said to have been stopped because he could not raise money to take up his bond, but it is probable he made little on his mining operations.

In April,1906, the property went into the hands of Stokes Brothers, who worked it for six or eight months, and milled about three thousand tons of ore. They extended the east cross cut on the 200 level from 135' to 270' from the shaft,and mined ore from the 100' to 350' level. The Superintendent's report of assay returns, from May 19th,to August 12th, shows that the average value of the ore, mined by Stokes Brothers, ran considerably lower than the McCune mill heads($7.60). A study of the assay figures clearly shows a decrease in the quality and value of the ore. From the data available no estimate can be made as to the tonnage of each grade mined. The mine closed down in August,1906, and has since remained idle. At the present time it is under Stokes Brothers' control.

The writer is indebted for the above sketch of the property to old reports and personal information from former Superintendant Lane.

CLAIMS:

The property of the Horseshow Mining Company,comprises af group of six adjoining claims, which cover the head of Fay Gulch and extend to near the summit of the two adjoining ridges.

MAP No. 2:--A Sketch Map, shows the approximate position and relation of the Horseshoe No.1, No.2, No.3, and No.4. Bryan, and Bryan Extension Claims. The veins are indicated, but are only sketched as to location.

The Company owns a water claim, known as the Spring Lode,about 4 miles north of the main group. Water is developed by a tunnel and

piped to the mill. It is said to be ample for milling and camp use, both in summer and winter.

All claims are said to be patented and recorded at Pioche.

At Fay the magnetic variation is 16 15' E. Directions, however, mentioned in this report are magnetic north readings.

MILL AND COMPANY PROPERTY:

A 100-ton mill--originally dry crushing and cyaniding--stands near the shaft on the Horseshoe #4 Claim.

PHOTO #12. Shows the mill,taken from Northeast Corner Post of Horseshoe #1 Claim. Looking S.E. towards Buck Mountain.

Ore is dumped from the skip into a chute above a Gates Crusher, and crushed to 3-4". It passes over a Grizzly to a second Gates Crusher, which crushes to 1",and from here goes to bins, which hold one days' mill run. Under present arrangements two Monadnock Mills crush(wet) to 15 mesh wire screen. The pulp is elevated to two conical classifiers,and the slimes go to settling tanks,and afterwards to cyanide tanks. Coarse sands from the classifiers go to separate tanks and are fed in by automatic distributors. Nine 100 ton cyanide tanks are used and the solutions held 9 days. They are then collected in the sump tank and passed through the zinc boxes. The tanks are emptied by hand shovelling, through four openings into cars beneath at a cost of 15¢ a ton. There is a tailings dump, roughly estimated from the amount of ore milled and subsequent washing away of tailings, as between 40,000 and 45,000 tons. Some samples of this dump were taken and will be mentioned under assays.

The power for the mill was furnished by a Bates-Corliss engine 125 H.P. A Rand 3 Drill and 7 Drill Compressor are on the ground. Also two 80 H.P.,1--30 H.P. and 1--60 H.P. Boilers. Wood was used as fuel 7-8 cords a day, to run Compressors, Mill and Hoist. It was delivered at $3.50 a cord. The hoist is a 50 H.P. Tuttle Mfg.& Supply Co.,and was last used in September,1906. The machinery appears in fair condition. Assay Office, Supply rooms,etc.,were convenient and apparently well

equipped.

Beside the Company office, Supenintendant's house, Blacksmith Shop, Oil house, Stables,etc., the Company ran a store. It owns six cottages, which were rented at $10.00 a month to employees. PHOTO No. 2. Shows four of these houses. The Boarding house was rented at $50.00 a month for the privilege of keeping boarders. The bunk house can accommodate 75 men,and miner's board was $1.00 a day.

Wages paid were:-

Muckers,	$3.00
Machine men,	3.50
Engineers,	3.50
Head Blacksmith,	4.00
Blacksmith's help,	3.00
Shift boss,	4.00

GEOLOGY:

The country rock on the claims,and in the neighborhood,so far as observed, is entirely eruptive. It consists of massive hornblende, andesite, mostly of grayish-green color, but along the ledges it is stained red by iron,and in places is a purple or lilac tint. It weathers to a yellowish bmmwn. At the time of visit to the property the surface was covered with snow,which made a detail study of surface conditions. The data oBtainable regarding geology and surface showing is therefore necessarily fragmentary.

Three well defined systems of fissures cut the andesite; these are not only local but were noted over several miles of country east of the Horseshoe Mine. One set of fissures strikes nearly north and south--N.15 to 35 W.(magnetic) and dips 70 E. A second set is approximately parallel to this but dips 70 to 80 W. and crosses the first set. Mineralization accompanied or followed the fissuring and these two sets of fissures are largely filled with quartz and spar and form the vein system of the neighborhood. The andesite is crushed and fractured along the veins, in places resembling a volcanic breccia. Quartz veinlets cross

gouge. Samples Nos.8,9,10,11 and 12, were taken on the outcrop and Nos. 6 and 7, were taken underground on the 100 foot level. See Assays. This vein outcrops intermittently between the shaft and wagon road to the south. Below the road the outcrop is practically continuous for 100 ' or more. PHOTO No.6--is looking north along this outcrop.

WEST VEIN:-

This vein outcrops along the ridge on the Horseshoe Nos. 1 and 2 Claims,and is approximately 300--400 feet west of the main Horseshoe vein. A shaft sunk by McCune on the Horseshoe No.1 Claim for a patent is 60 feet deep and exposes a strong vein 4--6 feet wide. Samples have been taken from this shaft,assaying from 60¢ to $2.40. A short cross cut in the bottom, in the hanging wall, passes through white vein quartz, then altered andesite with quartz and spar stringers,and cuts a small vein of green fluorite. A drift to the east exposes a quartz vein with considerable iron stain along the walls. In the shaft the vein is 5 feet wide,mostly white solid quartz, with flinty portions, and some spar. The footwall is well defined and is red with iron staining. Andesite bordering the vein is somewhat kaolinized. On the surface the vein can be traced a short distance to the north until lost in the wash bordering the gulch. South of the shaft it can be followed several hundred feet on to the Horseshoe No.2 Claim,and passes east of U.S.L.M. No.1,near the top of ridge. The quartz vein outcrops 1 to 3 feet wide,and south of the shaft strikes N. 30 W.,dipping 72 W. This is the average strike. Samples 15, 16 and 17 were taken here. The vein is strong and well defined.

Another vein outcrops on top of ridge about 50 feet west of the West Vein,and crosses the end line of Horseshoe Nos. 1 and 2. A discovery shaft sunk here exposes a strong quartz vein 3--4 feet wide, somewhat loose and broken near the surface. Strike in shaft is north 30 to 35 W.;Dip 70 -- 80 W. In discovery pit nein is exposed and shows much calcite. North of here the vein appears to branch. Sample

No.18 was taken along the outcrop of this vein. The country rock is greenish andesite with kaolinized feldspar.

EAST VEINS:--

Beginning at the Horseshoe ledge, near shaft, there appear to be three quartz veins outcropping to the east. The general strike of these veins is N. 30 --35 W. and dip 60 -- 70 E. The first vein outcrops some 200--250 feet east of the shaft. The second vein and one which appears of most interest, outcrops between 100 and 200 feet east of the first and as yet has not been reached by the east cross cut from the 200 level.

Second East Vein:--At a point approximately 400 feet due east of shaft this vein outcrops 1--2 feet wide,and strikes N. 30 W.,dipping 65 E. Free gold is said to have been found here. Small specks of purple fluorite were noted. Samples 13 and 14 were taken here. An outcrop bordering the main street in Fay appears to belong to this vein, but no connection can be traced on the surface. PHOTO No.7--Looking N.E.,shows the above outcrop.

The Third East Vein passes through the discovery post on the Bryan Extension claim and can be traced south into the Bryan. This vein was mostly covered by snow.

UNDERGROUND DEVELOPMENT:-

Most of the underground work has been done on the Horseshoe No.4 Claim. The Horseshoe vein is developed by an incline shaft 425 feet deep with drifts on the vein from the 100 , 200, 300, and 400 foot levels. Several cross cuts are driven into the foot and hanging. PHOTO No.8--Shows the head frame and hoist house,looking N. across the tailing dumps.

100 LEVEL:--All ore of workable grade has been stoped out, some lean portions of the vein have been left standing, or only stoped 30' to 50' above the drift. Near chute 12 about 75' south of shaft, the vein strikes N. 35 W. and dips 70 E. The vein is 12--14" between walls,and carries white quartz,slightly banded, with some calcite along

the hanging wall. The Magazine drift runs east into the footwall about 35' south of shaft. It cross cuts about 134' and then follows a 6 inch stringer of quartz to the south for 125 feet,again cross cutting east for 60 feet. At this point a strong vein was cut. The vein is drifted on a short distance north and south. It strikes N. 30 W.,and dips 70 to 80 W. The vein filling is white massive quartz,associated with more or less spar. Some iron stain occurs along the walls, which are 3--4 feet apart. The country rock is greenish gray andésite . Vein appears strong. Samples Nos.6 and 7 were taken here.

200 LEVEL:-Pay ore was stoped on this level during the McCune administration but has been worked out. The level is driven about 600 feet north of shaft and mostly stoped to the 100. A cave-in blocks the drift near chute 25. The strike of vein here is N. 20 W. and dip 75 E. Small bunches of ore left standing show 1--3 feet of banded vein quartz. In stoped out portions the vein was 5 or 6 feet between the walls.

THE EAST CROSS CUT on this level was driven about 3008 into the hanging wall,and cut several small quartz and calcite veins. About 100' from the face a vein 3' wide was cut and was drifted on a short distance North and South. The vein material is not solid quartz but is fractured and mixed wi th andesite. It shows some iron staining but carries little values. This vein strikes N. 25 W.,dips 75 E.,and appears to be the No.1 East Vein,exposed on the surface. Between this point and the face the cross cut developes several small tight veins of quartz and spar upon which no work has been done. Measurements were made on the surface to determine whether the Second East Vein,which carries free gold(?) and fluorite, had been cut. This was found to be 100--125 feet farther east than the face of the cross cut. The Third East Vein is still farther to the east and has not been cut. Rock from the East Cross Cut was used as stope filling and not hoisted to the surface.

South of the shaft on the 200 level the vein was drifted on about 800 feet. It is impossible to reach the face from this level,at

the present time, on account of caved ground. By going to the 300,however, and climbing up to a raise, the south part of this level is accessable. Near Chute 47 a cross cut was driven west for 70 feet,but no veins were cut. North of Chutes 45 and 46 the vein has the normal east dip but near here it becomes approximately vertical and to the south dips to the west. Near the west cross cut the vein averages 4 feet and is stoped above the level. South of the west cross cut, near the face of the 200, the vein narrows to 2 feet, and no stoping has been done. The ground is considerably fractured and broken and vein is cut by N. 80 E. fissures. It does not look strong or promising at this point.

TheBOYS STOPE,between the 200 and 300 levels, according to measurements by Superintendant Lane, still contains about 30' of backs, for 135 feet along the strike. Ore 2-3 feet wide is exposed. The quartz is distinctly banded and contains rough fragments of country rock along the walls. At one point small oxidized pyrite crystals were noted in the vein.

A large amount of work has been done between the 200 and 300 levels south of the shaft. The pay ore has been stoped out but some narrow portions in the Boys Stope and farther south are left standing.

300 LEVEL:--North of the shaft this level extended about 175' but at the present time is accessable for only half that distance on account of caved ground. Below the 300 level, in the shaft water comes within 30' of the station. South of the shaft the west cross cut 70' into the footwall, passes through several small spar and quartz stringers, with westerly dip, and cuts the West dip Vein. This vein has approximately the same strike as the main vein,and joins or crosses it in the stopes between the 200 and 300 foot levels. So far no ore has been developed above where it joins the Horseshoe vein,though the West Dip fissuring can be seen extending into the hanging.

On the 300 level,south of the cross cut, the West Dip Vein opened out into 4 to 8' of quartz ore,and as far south as Chute 72, it is stoped out to the 200. Also considerable ore was stoped to the 350

level below. The vein strikes N. 15 W. and dips 80 W.,near chute 72 and is 6 feet between the walls. Above in the stopes it narrows to 4 feet and shows a distinct banded or ribbon structure. South of this some 200 feet to the face no stoping has been done. A raise is driven here to the 200 level, near the south face, the vein is 6 feet wide, and shows banded structure. Some calcite and red clay mud occur along the walls and several cross fissures cut the vein. In this neighborhood it is strong but carries too low values to work.

The BIG STOPE, below the 300 level, near the west cross cut, chute 69, shows the vein to be 11 feet between the walls. This widening appears to have been caused by the junction of a vein from the foot wall. According to Superintendant Lane there is about 700 tons of broken ore in the stope,which can be drawn out from a chute on the 350. The vein is practically stoped out to the 300. Water can be seen in the lower part of the stope.

SAMPLES AND ASSAYS:-

All available records of the mine assays,mill samples,samples from various veins,etc.,have been referred to and it was intended to make tables showing the average quality of ore from the different parts of the workings. This has been omitted on account of lack of time. Samples taken during the present examination,from the outcrops of the different veins, and the tailings, were as follows:--

SAMPLE No.1--

Main Horseshoe ledge,beginning near oil house,about 150' south of shaft,on quartz vein, 1--3 feet wide, for 25 feet along the outcrop.

Gold 0.03 oz. Silver Trace, Value $0.60

SAMPLE No.2---

Ditto,beginning 50 feet south of Sample No.1,along 25 feet of outcrop. Quartz and calcite from vein--no ledge matter.

Gold 0.03 oz. Silver Trace, Value $0.60

SAMPLE No.3---D

Ditto,about 50' farther south on prominent outcrop.

Quartz with some iron staining and calcite.

Gold 0.04 oz. Silver 0.3 Value $0.95

SAMPLE No.4--

Ditto. South of road along 50' of prominent quartz ribbed outcrop. Little massive quartz but silicious ledge matter and angular rock fragments cemented by quartz.

Gold 0.03 oz. Silver Trace. Value $0.60

SAMPLE No.5---

Ditto. 50' south of No.4, for 50' along outcrop to near bottom of gulch,below the south end of large tailing dump. Quartz and calcite 1--2 feet wide,showing some iron staining.

Gold 0.12 oz Silver 0.4 oz Value $2.40

SAMPLE No.6---

100 foot level--Magazine Vein--south face of drift, across 4'6" of quartz with iron staining,and spar.

Gold 0.10 oz Silver 0.6 oz. Value $2.30

SAMPLE No.7---

Ditto,across 4' of vein in north face of drift. Soft red gouge, quartz,spar and iron staining.

Gold 0.04 oz Silver 0.4 oz. Value $1.00

SAMPLE No.8---

Magazine Vein,outcrop, approximately 200' south of shaft. Quartz outcrop 2' wide, along 15' of vein.

Gold 0.03 oz. Silver 0.3 oz. Value $0.75

SAMPLE NO.9---

Magazine Vein. North end of continuous outcrop, 75-100 feet, south of Sample 8. Vein is 3-4 feet wide, massive quartz,along strike for 10'.

Gold 0.03 oz Silver 0.3 oz. Value $0.75

SAMPLE NO. 10--

Ditto, 15' South of No.9,across 4' of solid quartz,showing calcite in center of vein. Along 10'.

Gold 0.03 oz. Silver 0.3 Value $0.75

SAMPLE NO.11---

Ditto. 30' South of No.10,along 25' of outcrop. Vein averages 2' of white massive quartz.

Gold 0.03 oz Silver 0.3 oz. Value $0.75

SAMPLE NO.12---

Ditto,along 35' of vein,from Sample 11, to where vein disappears in gulch wash. Average width of vein 1--2'.

Gold 0.03 oz. Silver 0.3 oz. Value $0.75

SAMPLE NO.13---

East Vein on Bryan Extension Claim, at point about 400 feet due east of shaft. Free gold is said to have been found here. Vein 2' wide. Quartz and andesite carries small oxidized pyrite crystals. Sample along 6' of outcrop.

Gold 0.08 oz. Silver0.6 oz. Value $1.90

SAMPLE NO 14---

Ditto, 30' along vein north of No.12. Vein outcropping in places. Quartz iron stained and banded,8" to 1' wide.

Gold None. Silver Trace. Value $0.0

SAMPLE NO 15---

Shaft on West Vein. Sample taken by Mr.Woolley across 5' of solid quartz about 6' below collar of shaft.

Gold 0.04 oz. Silver 0.3 oz. Value $0.95

SAMPLE NO.16---

West Vein.About 150' South of Shaft on hill. Quartz outcrop 1--2 feet wide. Some iron staining along the walls.

Gold 0.03 oz. Silver 0.2 oz. Value $0.70

SAMPLE NO 17---

Ditto, from Nos. 16, 20' south. Quartz and spar up to 2' wide.

Gold 0.05 oz. Silver 0.3 oz. Value $1.15

SAMPLE NO 18---

Vein 50-100' West of West Vein. Near discovery on Horseshoe No.1 and No. 2 Claims--end line. Outcrop of quartz and spar 1--2' wide. Along 35' of vein, North of shaft.

Gold 0.03 oz. Silver 0.2 oz Value $0.70

SAMPLE NO. 19---

Mill heads. North bin above Monadnock Mill. Grab sample of ore broken 3/4--1 inch size. Said to be from 350 foot level; Stokes Brothers' run.

Gold 0.18 oz Silver 0.6 oz. Value $3.90

SAMPLE NO.20---

Ditto,South bin,mostly fines from bottom of bin--grab sample.

Gold 0.18 oz. Silver 0.6 oz. Value $3.90

SAMPLE NO. 21---

Large outcrop on Horseshoe No.3 Claim,above Moody's Store. This outcrop is probably on the main Horseshoe Lode. Across 30' of quartz and spar outcrop.

Gold 0.04 oz. Silver 0.2 oz. Value $0.90

~~xxxxxxxxx~~.Photo No.10,taken just north of the outcrop,shows the town of Fay, with Bunk House,Boarding House,Company's Store,etc., in center. Looking N.E. toward Bull Hill.

TAILINGS:--

The following samples were taken of the tailing dump from the mill. The samples were obtained by boring with a 5' augur, 1¼" in diameter. Mr.Kimball, in charge of the property, helped in boring the holes. The samples were taken at random from the top of the dumps

and show uniform values. They are slightly lower than the average McCune tailings i e,$1.085 in gold, and 0.63 oz. in silver--equal $1.40.

PHOTO NO.11,Looking N.shows the tailings.

SAMPLE NO.22---

G.Pray Smith Dump. Second Dump from east side, about 30' from pine tree, on end of dump--60 feet from Assay Office. Tailings on surface reddish--borings white.

Gold 0.04 oz. Silver 0.7 oz. Value $1.15

SAMPLE NO.23---

Same Dump 50ß south of No.22, on west side of dump, in trough between dumps, about 8 feet below level of track. This sample is half way to end of dump.

Gold 0.04 oz. Silver 0&7 oz. Value $1.15

SAMPLE NO.24---

Same dump. 50' south of No.23 and 20' from end of dump. Borings from top of dump under track.

Gold 0.05 oz. Silver 0.6 oz. Value $1.30

SAMPLE NO.25---

DumptNo.3 from east side. First part is McCune dump--south end G.Pray Smith. 50' south of junction of dump or about 80' from pine tree on edge of dump. From center of track.

Gold 0.04 oz. Silver 0.6 oz. Value $1.10

SAMPLE NO.26---

Ditto, McCune part, 50' south of No.25. 5' hole,showing dry borings.

Gold 0.04 oz. Silver 0.4 oz Value $1.00

SAMPLE NO.27---

Ditto,50' south of No.26, G.Pray Smith Dump; in trough on west side. Hole 8' below level of track. Tailings wet.

Gold 0.04 oz. Silver 0.5 oz. Value $1.05

SAMPLE NO.28---

5th dump from east, longest dump McCune tailings. Sample from top of dump under tracks, even with end of dump No.4. Wet on top, dry below.

Gold 0.04 oz. Silver 0.3 oz. Value $0.95

SAMPLE NO.29---

Dump No.5. 100' south of No.28, and near center of dump.

Gold 0.04 oz. Silver 0.4 oz Value $1.00

SAMPLE NO.30---

Dump No.6. Large dump farthest west of the long dumps--McCune. Bore middle of track, near dumping frame.

Gold 0.04 oz. Silver 0.4 oz. Value $1.00

SAMPLE NO.31---

Dump No.6. 100' south of No.30 and about 50' from end of dump, center of track. Tailings wet and packed hard.

Gold 0.04 oz. Silver 0.5 oz. Value $1.05

:REMARKS:

Ore occurs on this property in fissure veins; as proved by past development the values are found in chutes, which pitch to the south.

Practically all the workable ore exposed or available from present development has been worked out above the 300 level. Small bunches of ore remain in various parts of the mine; possibly a small tonnage in the Boys Stope and in the large stope below the 300 foot level. Assuming this ore to be a workable grade and liberally estimated it would not supply the mill for a half month's run.

The ground still available for stoping lies below the 300 level. There is a possibility of the ore chute continuing and being found on the 400 level south of the shaft. Stoping has been done on the 350 level. At the present time water is within 30' of the 300 station and no data is available regarding the 350 or 400 foot levels.

Up to date,however, the pay chute has not been developed on the 400. On the 300 level,south of the west cross cut, the vein is strong, but carries little values,--too low to be mined. This is beyond the chute but it is possible ore might be developed below this ground. In the upper levels of the mine, on the 100 and 200, payaore was mined. These levels were not driven any distance north of the chute. On the south the values also decreased beyond the pay ore. The levels, though driven some distance did not encounter any further chutes,and the ore was of too low a grade to work.

Regarding the other veins on the property. The East cross cut is good development work and has cut one of the veins exposed on the surface. This,however, where cut, carried little values. The second vein, which is reported to have shown free gold, on the outcrop, has not been cut. One or two hundred feet farther cross cutting here should reach this vein. Whether it will carry values or not is an open question. Little values were found in Samples from the outcrop.

The West Cross Cut, from the 300 foot level, might be extended to cut the Magazine and West Veins, at this depth. This cross cut would have to be extended at least 400 feet to reach the West Vein. Small values have been found on the outcrops of both of these veins and some ore chutes might be developed. There would also be a possibility of developing ore chutes on the main vein by the further south extension of the various levels. The points in favor of this are:--That the veins on the property are strong fissure veins and the quartz vein filling appears to be relatively constant along the fissures. Also values are found at various points and one ore chute of workable grade has been developed. The other veins on the property are undoubtedly of the same genesis and were probably formed at the same time, as the Horseshoe Vein. Therefore, it is possible that other ore chutes exist. The values obtained on the outcrop of the Horseshoe vein,south of the ore chute,and on the outcrops of the other veins, are nearly alike,

and all the quartz carries small values.

On the other hand, mineralization appears to be light, and the ore is relatively speaking of low grade. As far as the present examination and by a careful sampling of the outcrops no indications of ore chutes were obtained.

In my opinion there is nothing definite in sight on which to recommend the property.

Respectfully submitted,

Salt Lake City, Utah,

March 19th, 1908.

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THE HORSESHOE GOLD MINING COMPANY'S PROPERTY,

Fay, Lincoln County, Nev.

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