THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393 DATE November 21st, 1914

TEST 1

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M. E. XXXX

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Au	ASSAYS PER TON OF 2,000 POUNDS Ag	CONTENTS = ASSAY X PER CENT OF WEIGHT Au	CONTENTS = ASSAY X PER CENT OF WEIGHT Ag	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Au	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Ag
	An average 2 lb. sample of the ore as received was crushed to pass 4 mesh and gave the following screen analysis:-								
	TABLE I								
	Retained on 8 Mesh		17.50						
	" " 14 "		16.80						
	" " 20 "		9.50						
	" " 35 "		15.00						
	" " 65 "		12.00						
	" " 100 "		5.20						
	" " 150 "		6.50						
	" " 200 "		5.00						
	Pass 200 "		12.50						
			100.00						
	The sample was then leached in a glass percolator for 40 hours with a 4.1 lb. cyanide solution after the addition of 0.4% lime. Cyanide consumption at this point = 0.3 lbs. per ton. A fresh 2 lb. solution was added and leaching continued 40 hours showing an additional consumption of 0.6 lbs. cyanide, making a total cyanide consumption of 0.9 lbs. per ton. The charge was then washed, dried and assayed.								
	TABLE II								
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
3	Cyanide Tails		100.00	0.085	0.22	8.50	22.00	27.42	62.86
2	" Extraction(by diff.)		100.00	0.225	0.13	22.50	13.00	72.58	37.14
	Showing an extraction of 72.58% of the gold and 37.14% of the silver								
	Another 2 lb. sample was crushed to pass 16 mesh, giving the following screen analysis:								
	TABLE III								
1A	Retained on 20 Mesh		8.00	0.325		2.680		7.94	
1B	" " 35 "		25.60	0.320		8.192		24.26	
1C	" " 65 "		20.00	0.275		5.500		16.29	
1D	" " 100 "		8.20	0.230		1.886		5.58	
1E	" " 150 "		10.00	0.200		2.000		5.92	
1F	" " 200 "		6.50	0.220		1.430		4.23	
1G	Pass 200 "(Sands)		7.20	0.49		3.528		10.45	
1H	" 200 Mesh(Slimes)		14.50	0.59		8.555		25.33	
	Total by S.Analysis		100.00	0.337		33.771		100.00	
	" by Assay			0.31					
	The sample was then treated similar to the treatment given the sample crushed to 1/4 mesh. Cyanide consumption = 0.75 lbs. per ton.								
	TABLE IV								
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
5	Cyanide Tails		100.00	0.055	0.20	5.50	20.00	17.74	57.14
4	" Extraction(by diff.)		100.00	0.255	0.15	25.50	15.00	82.26	42.86
	Showing an extraction of 82.26% of the gold and 42.86% of the silver.								

REMARKS * Total -200 mesh = 21.70%

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER
SALT LAKE CITY, UTAH

LOT 393 DATE November 21st, 1914.

TEST 1

ORE TESTING DEPARTMENT
ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M. E. xxxxx

SAMPLE NO.	SAMPLES	WEIGHTS Lbs. Grams	WEIGHTS Per Cent	ASSAYS per ton of 2,000 pounds Au	ASSAYS per ton of 2,000 pounds Ag	CONTENTS = Assay x Per Cent of Weight Au	CONTENTS = Assay x Per Cent of Weight Ag	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = Per Cent. of Recovery or Loss Au	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = Per Cent. of Recovery or Loss Ag
	TABLE V	Assay screen analysis of Sample #5 (Cyanide tails from 16 mesh crushing)							
5A	Reatined on 20 mesh		8.00	0.12		0.960		17.41	
5B	" " 35 "		25.50	0.09		2.295		41.62	
5C	" " 65 "		19.50	0.065		1.267		22.98	
5D	" " 100 "		8.00	0.04		0.320		5.81	
5E	" " 150 "		11.00	0.02		0.220		3.88	
5F	" " 200 "		6.50	0.02		0.130		2.36	
5G	Pass 200 Mesh(Sands)		7.00	0.015		0.105		1.90	
5H	" " " (Slimes)		14.50	0.015		0.217		3.94	
5	Tails(by S.Analysis)		100.00	0.055		5.514		100.00	
	" (by assay)		100.00	0.055					
		Another 2 lb. sample was crushed to pass 30 mesh, giving the following screen analysis:							
	TABLE VI								
	Retained on 65 mesh		42.50						
	" " 100 "		13.00						
	" " 150 "		12.50						
	" " 200 "		6.50						
	Pass 200 "		25.50						
	Total		100.00						
		The sample was then treated similar to the treatment given the samples crushed to 1/4 and 16 mesh. Cyanide consumption = 0.95 lbs. per ton.							
	TABLE VII								
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
7	Cyanide Tails		100.00	0.035	0.17	3.50	17.00	11.29	48.57
6	" Extraction(by Diff.)		100.00	0.275	0.18	27.50	18.00	88.71	51.43
		Showing an extraction of 88.71% of the gold and 51.43% of the silver.							

ASSAY SCREEN ANALYSIS OF HEADS & TAILS FROM 16 MESH CRUSH SHOWING % EXTRACTION OF EACH SIZE

TABLE VIII	% Weight Feed	% Weight Tails	Au Assay per ton Feed	Au Assay per ton Tails	Total oz. Feed	Total oz. Tails	Total oz. Feed	Total oz. Tails	% Extraction on Each Size	% of Loss on Each Size
Retained on 20 Mesh	8.00	8.00	0.335	0.12	2.680	0.960			64.18	3.10 = 17.43%
" " 35 "	25.60	25.50	0.320	0.09	8.192	2.295			71.99	7.40 = 41.62%
" " 65 "	20.00	19.50	0.275	0.065	5.500	1.267			76.96	4.08 = 22.95%
" " 100 "	8.20	8.00	0.230	0.04	1.886	0.320			83.03	1.03 = 5.79%
" " 150 "	10.00	11.00	0.200	0.02	2.000	0.220			89.00	0.71 = 3.99%
" " 200 "	6.50	6.50	0.220	0.02	1.430	0.130			90.91	0.42 = 2.36%
Pass 200 Mesh(Sands)	7.20	7.00	0.490	0.015	3.528	0.105			97.02	0.34 = 1.92%
" 200 " (Slimes)	14.50	14.50	0.590	0.015	8.555	0.217			97.41	0.70 = 3.94%
Totals	100.00	100.0	0.337	0.085	0.282	33.771	5.514			17.78 = 100.0%

HEADS

Gold oz.	Silver oz.	Copper %	Insol. %	Iron %
0.31	0.35	Trace	93.20	2.20

Sample furnished by J. E. Spurr, M. E.

REMARKS Assaying by Union Assay Office.

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393 DATE _____ 191__

TEST _____

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF _____ TEST ON _____ FROM _____ MINE _____

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS	CONTENTS = ASSAY X PER CENT OF WEIGHT	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS

COMPARISON OF SCREEN ANALYSES AT 1/4, 16 AND 30 MESH CRUSHING

	1/4 MESH % Wt.	16 MESH % Wt.	30 MESH % Wt.
Retained on 8 Mesh	17.50		
" " 14 "	16.80		
" " 20 "	9.50	8.00	
" " 35 "	15.00	25.60	
" " 65 "	12.00	20.00	42.50
" " 100 "	5.20	8.20	13.00
" " 150 "	6.50	10.00	12.50
" " 200 "	5.00	6.50	6.50
Pass 200 "	12.50	21.70	25.50
" 200 Sands		7.20	
" 200 Slimes		14.50	

REMARKS

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER
SALT LAKE CITY, UTAH

LOT 393

DATE December, 191 4.

TEST

ORE TESTING DEPARTMENT
ASSAYS AND CALCULATIONS

OF TEST ON FROM MINE

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS	CONTENTS = ASSAY X PER CENT OF WEIGHT	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS

COMPARISON OF RESULTS OBTAINED IN VARIOUS TESTS

Method Employed	Cyanide Consp'n Per ton	Extraction % Au	Extraction % Ag	Final Tails Au	Final Tails Ag	$ Extracted per ton Gold @ $20.00, Silver @ 50¢
Crushing dry to 4 mesh, leaching for 80 hours	0.9 lbs.	72.58	37.14	.085	0.22	$4.565 = 71.61% Extr'n of gold & Silve
Same as above except Crushing to 16 mesh	0.75 lbs.	82.26	42.86	.055	0.20	$5.175 = 81.17% " " "
Same as above except Crushing to 30 mesh	0.95 lbs.	88.71	51.43	.035	0.17	$5.59 = 88.76% " " "
Crushing dry to 16 mesh, leaching for 48 hours, washing for 6 hours	0.60 lbs.	83.87	51.43	.05	0.17	$5.29 = 84.08% " " "
Same as above except leaching continued for 12 hours longer	0.60 lbs.	83.87	42.86	.05	0.20	$5.275 = 83.84% " " "
Same as above except leaching continued for 12 hours longer	0.80 lbs.	85.48	51.43	.045	0.18	$5.39 = 85.65% " " "
Crushing to 20 mesh wet in solution, separating into sands and slimes, leaching the sands for 36 hours and agitating the slimes with a 1 lb. solution	0.60 lbs.	85.89	44.77	.0437	0.193	$5.49 = 87.22% " " "
Same as above except slimes agitated with 2 lb. solution	0.60 lbs.	87.23	55.46	.0396	0.156	$5.505 = 87.45% " " "

HEADS

Gold oz.	Silver oz.	Copper %	Insol. %	Iron %
0.31	0.35	Trace	93.20	2.20

Sample furnished by Mr. J. E. Spurr

REMARKS Assaying by Union Assay Office.

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER
SALT LAKE CITY, UTAH

LOT 393

DATE November 28th, 1914.

TEST 2

ORE TESTING DEPARTMENT
ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M.E. MINE

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS =ASSAY X PER CENT OF WEIGHT Gold	CONTENTS =ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE =PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE =PER CENT. OF RECOVERY OR LOSS Silver
	An average sample of the ore crushed to pass 16 mesh, saturated 12 hours with a 4 lb. cyanide solution then leached for 12 hours, after which a fresh 2.4 lb. solution was added and leaching continued for another 12 hours; charge then washed for 6 hours with one-half its weight of wash water; 0.4% lime added to charge before leaching Total time in contact, including washing = 54 hours Total cyanide consumption = 0.6 lbs. per ton.								
	TABLE I								
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
3	Cyanide Tails		100.00	0.05	0.17	5.00	17.00	16.13	48.57
2	" Extraction(by diff.)		100.00	0.26	0.18	26.00	18.00	83.87	51.43
	Showing an extraction of 83.87% of the gold and 51.43% of the silver.								
	Same as above except leaching continued for 12 hours longer Cyanide consumption = 0.6 lbs. per ton								
	TABLE II								
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
5	Cyanide Tails		100.00	0.05	0.20	5.00	20.00	16.13	57.14
4	" Extraction(by diff.)		100.00	0.26	0.15	26.00	15.00	83.87	42.86
	Showing an extraction of 83.87% of the gold and 42.86% of the silver.								
	Same as above except leaching continued for an additional 12 hours, making 72 hours. Cyanide consumption = 0.8 lbs. per ton.								
	TABLE III								
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
7	Cyanide Tails		100.00	0.045	0.17	4.50	17.00	14.52	48.57
6	Extraction(by diff.)		100.00	0.265	0.18	26.50	18.00	85.48	51.43
	Showing an extraction of 85.48% of the gold and 51.43% of the silver.								

HEADS

Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0.35	Trace	93.20	2.20

REMARKS

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

TEST 3

DATE December 2nd, 1914.

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Sparr, M.E. ~~MINE~~

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS = ASSAY X PER CENT OF WEIGHT Gold	CONTENTS = ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Silver
				An average sample of the ore was dry crushed to pass 4 mesh, then wet crushed to pass 20 mesh in small ball mill in 2 to 1 of a 0.55 lb. cyanide solution; 0.4% lime added before wet crushing. Cyanide consumption during crushing = 0.3 lbs. per ton. The crushed sample was then split into sands and slimes (plus and minus 120 mesh)					
	TABLE I								
2	+120 Mesh after Crushing	58.40		0.15	0.27	8.760	15.77	28.26	45.06
3	-120 " " "	41.60		0.275	0.42	11.440	17.47	36.90	49.91
2-3	+ and - 120 " "	100.00		0.202	0.332	20.200	33.24	65.16	94.97
1	Feed before crushing	100.00		0.310	0.3500	31.000	35.00	100.00	100.00
A	Crushing Extraction	100.00		0.108	0.0176	10.80	1.76	34.84	5.03
				Showing an extraction during crushing of 34.84% of the gold and 5.03% of Silver					
				Sample #2 (+120 Mesh Sands) was leached 36 hours with a 3.8 lb. cyanide solution. Consumption of cyanide during leaching = 0.3 lbs. per ton of sands.					
	TABLE II								
2	Sand Feed	58.40		0.15	0.27	8.760	15.77	28.26	45.06
7	Sand Tails	58.40		0.05	0.21	2.920	12.26	9.42	35.03
6	Sand Extraction	58.40		0.10	0.06	5.840	3.51	18.84	10.03
				An average portion of Sample #3 (-120 Mesh Slimes) was agitated for 12 hours with 1 to 1 of a 0.8 lb. cyanide solution. Consumption of cyanide during agitation = 0.3 lbs. per ton slimes.					
	TABLE III								
3	Slimes Feed	41.60		0.275	0.42	11.440	17.47	36.90	49.91
11	" Tails	41.60		0.035	0.17	1.456	7.07	4.69	20.20
10	Slimes Extraction	41.60		0.240	0.25	9.984	10.40	32.21	29.71
	TABLE IV			SUMMARY OF CRUSHING, LEACHING AND AGITATION RESULTS					
A	Crushing Extraction	100.00		0.108	0.0176	10.800	1.76	34.84	5.03
6	Sands "	58.40		0.10	0.06	5.800	3.51	18.64	10.03
10	Slimes "	41.60		0.240	0.250	9.984	10.40	32.21	29.71
7	Sand Tails	58.40		0.05	0.21	2.920	12.26	9.42	35.03
11	Slimes "	41.60		0.035	0.17	1.456	7.07	4.69	20.20
1	Feed	100.00		0.31	0.35	31.00	35.00	100.00	100.00
	TABLE V			SUMMARY OF TABLE IV					
6-10	Total Extraction	100.00		0.266	0.156	26.624	15.67	85.89	44.77
7-11	" Tails	100.00		.0437	0.193	4.376	19.33	14.11	55.23
1	Feed	100.00		0.31	0.35	31.000	0.35	100.00	100.00
				Total cyanide consumption = 0.60 lbs. per ton feed. Showing an extraction of 85.89% of the gold and 44.77% of the silver.					

REMARKS

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER
SALT LAKE CITY, UTAH

LOT 393 DATE December 1914

TEST 3

ORE TESTING DEPARTMENT
ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M.E. NAME

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS = ASSAY X PER CENT OF WEIGHT Gold	CONTENTS = ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Silver
	Another average portion of Sample #3 (-120 Mesh Slimes) was agitated 12 hours with 1-1/2 to 1 of a 2 lb. cyanide solution. Cyanide consumption = 0.2 lbs. per ton slimes.								
	TABLE VI								
3	Slime Feed	41.60		0.275	0/42	11.440	11.440	17.47	36.90	49.91
15	" Tails	41.60		0.025	0.08		1.040	3.33	3.35	9.51
14	Slime Extraction	41.60		0.250	0.34		10.40	14.14	33.55	40.40
	SUMMARY OF CRUSHING, LEACHING & AGITATING RESULTS									
	TABLE VII									
A	Crushing Extraction	100.00		0.108	.0176		10.800	1.76	34.84	5.03
6	Sands "	58.40		0.100	.06		5.840	3.51	18.84	10.03
14	Slimes "	41.60		0.250	.34		10.40	14.14	33.55	40.40
7	Sand Tails	58.40		0.05	.21		2.92	12.26	9.42	35.03
15	Slime "	41.60		0.025	.08		1.04	3.33	3.35	9.51
1	Feed	100.00		0.31	0.35		31.00	35.00	100.00	100.00
	SUMMARY OF TABLE VII									
	TABLE VIII									
6-14	Total Extraction	100.00		0.27	0.194		27.04	19.41	87.23	55.46
7-15	" Tails	100.00		.0396	0.156		3.96	15.59	12.77	44.54
1	Feed	100.00		31.00	0.31		31.00	35.00	100.00	100.00

Total cyanide consumption = 0.60 lbs. per ton feed.
Showing an extraction of 87.23% of the gold and 55.46% of the silver.

HEADS

Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0.35	Trace	93.20	2.20

REMARKS

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE November 21st, 1914

TEST 1

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M. E. ~~MINE~~

SAMPLE NO.	SAMPLES	WEIGHTS		ASSAYS PER TON OF 2,000 POUNDS		CONTENTS = ASSAY X PER CENT OF WEIGHT		PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS	
		LBS. GRAMS	PER CENT	Au	Ag	Au	Ag	Au	Ag

An average 2 lb. sample of the ore as received was crushed to pass 4 mesh and gave the following screen analysis:-

TABLE I

Retained on	8 Mesh	17.50	
" "	14 "	16.80	
" "	20 "	9.50	
" "	35 "	15.00	
" "	65 "	12.00	
" "	100 "	5.20	
" "	150 "	6.50	
" "	200 "	5.00	
Pass	200 "	12.50	
		100.00	

The sample was then leached in a glass percolator for 40 hours with a 4.1 lb. cyanide solution after the addition of 0.4% lime. Cyanide consumption at this point = 0.3 lbs. per ton. A fresh 2 lb. solution was added and leaching continued 40 hours showing an additional consumption of 0.6 lbs. cyanide, making a total cyanide consumption of 0.9 lbs. per ton. The charge was then washed, dried and assayed.

TABLE II

1	Feed	100.00	0.31	0.35	31.00	35.00	100.00	100.00	
3	Cyanide Tails	100.00	0.085	0.22	8.50	22.00	27.42	62.86	
2	" Extraction(by diff.)	100.00	0.225	0.13	22.50	13.00	72.58	37.14	

Showing an extraction of 72.58% of the gold and 37.14% of the silver

Another 2 lb. sample was crushed to pass 16 mesh, giving the following screen analysis:

TABLE III

1A	Retained on 20 Mesh	8.00	0.325		2.680		7.94
1B	" " 35 "	25.60	0.320		8.192		24.26
1C	" " 65 "	20.00	0.275		5.500		16.29
1D	" " 100 "	8.20	0.230		1.886		5.58
1E	" " 150 "	10.00	0.200		2.000		5.92
1F	" " 200 "	6.50	0.220		1.430		4.23
1G	Pass 200 "(Sands)	7.20	0.49		3.528		10.45
1H	" 200 Mesh(Slimes)	14.50	0.59		8.555		25.33
	Total by S.Analysis	100.00	0.337		33.771		100.00
	" by Assay		0.31				

The sample was then treated similar to the treatment given the sample crushed to 1/4 mesh. Cyanide consumption = 0.75 lbs. per ton.

TABLE IV

1	Feed	100.00	0.31	0.35	31.00	35.00	100.00	100.00	
5	Cyanide Tails	100.00	0.055	0.20	5.50	20.00	17.74	57.14	
4	" Extraction(by diff.)	100.00	0.255	0.15	25.50	15.00	82.26	42.86	

Showing an extraction of 82.26% of the gold and 42.86% of the silver.

REMARKS * Total -200 mesh = 21.70%

THE GENERAL ENGINEERING CO.

PER J. M. Callow

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE November 21st, 1914.

TEST 1

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M. E. ~~MINE~~

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Au	ASSAYS PER TON OF 2,000 POUNDS Ag	CONTENTS = ASSAY X PER CENT OF WEIGHT Au	CONTENTS = ASSAY X PER CENT OF WEIGHT Ag	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Au	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Ag
	TABLE V Assay screen analysis of Sample #5 (Cyanide tails from 16 mesh crushing)								
5A	Reatined on 20 mesh		8.00	0.12		0.960		17.41	
5B	" " 35 "		25.50	0.09		2.295		41.62	
5C	" " 65 "		19.50	0.065		1.267		22.98	
5D	" " 100 "		8.00	0.04		0.320		5.81	
5E	" " 150 "		11.00	0.02		0.220		3.88	
5F	" " 200 "		6.50	0.02		0.130		2.36	
5G	Pass 200 Mesh(Sands)		7.00	0.015		0.105		1.90	
5H	" " " (Slimes)		14.50	0.015		0.217		3.94	
5	Tails(by S.Analysis)		100.00	0.055		5.514		100.00	
	" (by assay)		100.00	0.055					

Another 2 lb. sample was crushed to pass 30 mesh, giving the following screen analysis:

TABLE VI

Retained on 65 mesh	42.50
" " 100 "	13.00
" " 150 "	12.50
" " 200 "	6.50
Pass 200 "	25.50
Total	100.00

The sample was then treated similar to the treatment given the samples crushed to 1/4 and 16 mesh. Cyanide consumption = 0.95 lbs. per ton.

	TABLE VII								
1	Feed	100.00	0.31	0.35	31.00	35.00	100.00	100.00	
7	Cyanide Tails	100.00	0.035	0.17	3.50	17.00	11.29	48.57	
6	" Extraction(by Diff.)	100.00	0.275	0.18	27.50	18.00	88.71	51.43	

Showing an extraction of 88.71% of the gold and 51.43% of the silver.

ASSAY SCREEN ANALYSIS OF HEADS & TAILS FROM 16 MESH CRUSH SHOWING % EXTRACTION OF EACH SIZE

TABLE VIII	% Weight Feed	% Weight Tails	Au Assay per ton Feed	Au Assay per ton Tails	Total oz. Feed	Total oz. Tails	% Extraction on Each Size	% of Loss on Each Size
Retained on 20 Mesh	8.00	8.00	0.335	0.12	2.680	0.960	64.18	3.10 = 17.43%
" " 35 "	25.60	25.50	0.320	0.09	8.192	2.295	71.99	7.40 = 41.62%
" " 65 "	20.00	19.50	0.275	0.065	5.500	1.267	76.96	4.08 = 22.95%
" " 100 "	8.20	8.00	0.230	0.04	1.886	0.320	83.03	1.03 = 5.79%
" " 150 "	10.00	11.00	0.200	0.02	2.000	0.220	89.00	0.71 = 3.99%
" " 200 "	6.50	6.50	0.220	0.02	1.430	0.130	90.91	0.42 = 2.36%
Pass 200 Mesh(Sands)	7.20	7.00	0.490	0.015	3.528	0.105	97.02	0.34 = 1.92%
" 200 " (Slimes)	14.50	14.50	0.590	0.015	8.555	0.217	97.41	0.70 = 3.94%
Totals	100.00	100.0	0.337	0.085	0.282 33.771	5.514		17.78 = 100.0%

HEADS

Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0.35	Trace	93.20	2.20

Sample furnished by J. E. Spurr, M. E.

REMARKS Assaying by Union Assay office.

THE GENERAL ENGINEERING CO.

PER J. M. Callow

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE _____ 191__

TEST _____

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF _____ TEST ON _____ FROM _____ MINE _____

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS	CONTENTS = ASSAY X PER CENT OF WEIGHT	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS

COMPARISON OF SCREEN ANALYSES AT 1/4, 16 AND 30 MESH CRUSHING

	1/4 MESH % Wt.	16 MESH % Wt.	30 MESH % Wt.
Retained on 8 Mesh	17.50		
" " 14 "	16.80		
" " 20 "	9.50	8.00	
" " 35 "	15.00	25.60	
" " 65 "	12.00	20.00	42.50
" " 100 "	5.20	8.20	13.00
" " 150 "	6.50	10.00	12.50
" " 200 "	5.00	6.50	6.50
Pass 200 "	12.50	21.70	25.50
" 200 Sands		7.20	
" 200 Slimes		14.50	

REMARKS

THE GENERAL ENGINEERING CO.

PER J. M. Callow

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE November 28th, 1914.

TEST 2

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M.E. MINE

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS = ASSAY X PER CENT OF WEIGHT Gold	CONTENTS = ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Silver
	An average sample of the ore crushed to pass 16 mesh, saturated 12 hours with a 4 lb. cyanide solution then leached for 12 hours, after which a fresh 2.4 lb. solution was added and leaching continued for another 12 hours; charge then washed for 6 hours with one-half its weight of wash water; 0.4% lime added to charge before leaching. Total time in contact, including washing = 54 hours. Total cyanide consumption = 0.6 lbs. per ton.								
	TABLE I								
1	Feed	100.00		0.31	0.35	31.00	35.00	100.00	100.00
3	Cyanide Tails	100.00		0.05	0.17	5.00	17.00	16.13	48.57
2	" Extraction(by diff.)	100.00		0.26	0.18	26.00	18.00	83.87	51.43
	Showing an extraction of 83.87% of the gold and 51.43% of the silver.								
	Same as above except leaching continued for 12 hours longer. Cyanide consumption = 0.6 lbs. per ton								
	TABLE II								
1	Feed	100.00		0.31	0.35	31.00	35.00	100.00	100.00
5	Cyanide Tails	100.00		0.05	0.20	5.00	20.00	16.13	57.14
4	" Extraction(by diff.)	100.00		0.26	0.15	26.00	15.00	83.87	42.86
	Showing an extraction of 83.87% of the gold and 42.86% of the silver.								
	Same as above except leaching continued for an additional 12 hours, making 72 hours. Cyanide consumption = 0.8 lbs. per ton.								
	TABLE III								
1	Feed	100.00		0.31	0.35	31.00	35.00	100.00	100.00
7	Cyanide Tails	100.00		0.045	0.17	4.50	17.00	14.52	48.57
6	Extraction(by diff.)	100.00		0.265	0.18	26.50	18.00	85.48	51.43
	Showing an extraction of 85.48% of the gold and 51.43% of the silver.								

HEADS

Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0.35	Trace	93.20	2.20

REMARKS

THE GENERAL ENGINEERING CO.

PER J. M. Callow

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

TEST 3

DATE December 2nd, 1914.

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Sparr, M.E. MINE

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS = ASSAY X PER CENT OF WEIGHT Gold	CONTENTS = ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Silver
	An average sample of the ore was dry crushed to pass 4 mesh, then wet crushed to pass 20 mesh in small ball mill in 2 to 1 of a 0.55 lb. cyanide solution; 0.4% lime added before wet crushing. Cyanide consumption during crushing = 0.3 lbs. per ton. The crushed sample was then split into sands and slimes (plus and minus 120 mesh)								
	TABLE I								
2	+120 Mesh after Crushing	58.40		0.15	0.27	8.760	15.77	28.26	45.06
3	-120 " " "	41.60		0.275	0.42	11.440	17.47	36.90	49.91
2-3	+ and - 120 " "	100.00		0.202	0.332	20.200	33.24	65.16	94.97
1	Feed before crushing	100.00		0.310	0.350	31.000	35.00	100.00	100.00
A	Crushing Extraction	100.00		0.108	0.0176	10.80	1.76	34.84	5.03
	Showing an extraction during crushing of 34.84% of the gold and 5.03% of Silver								
	Sample #2 (+120 Mesh Sands) was leached 36 hours with a 3.8 lb. cyanide solution. Consumption of cyanide during leaching = 0.3 lbs. per ton of sands.								
	TABLE II								
2	Sand Feed	58.40		0.15	0.27	8.760	15.77	28.26	45.06
7	Sand Tails	58.40		0.05	0.21	2.920	12.26	9.42	35.03
6	Sand Extraction	58.40		0.10	0.06	5.840	3.51	18.84	10.03
	An average portion of Sample #3 (-120 Mesh Slimes) was agitated for 12 hours with 1 to 1 of a 0.8 lb. cyanide solution. Consumption of cyanide during agitation = 0.3 lbs. per ton slimes.								
	TABLE III								
3	Slimes Feed	41.60		0.275	0.42	11.440	17.47	36.90	49.91
11	" Tails	41.60		0.035	0.17	1.456	7.07	4.69	20.20
10	Slimes Extraction	41.60		0.240	0.25	9.984	10.40	32.21	29.71
	TABLE IV	**SUMMARY OF CRUSHING, LEACHING AND AGITATION RESULTS**							
A	Crushing Extraction	100.00		0.108	0.0176	10.800	1.76	34.84	5.03
6	Sands "	58.40		0.10	0.06	5.800	3.51	18.84	10.03
10	Slimes "	41.60		0.240	0.250	9.984	10.40	32.21	29.71
7	Sand Tails	58.40		0.05	0.21	2.920	12.26	9.42	35.03
11	Slimes "	41.60		0.035	0.17	1.456	7.07	4.69	20.20
1	Feed	100.00		0.31	0.35	31.00	35.00	100.00	100.00
	TABLE V	**SUMMARY OF TABLE IV**							
A-6-10	Total Extraction	100.00		0.266	0.156	26.624	15.67	85.89	44.77
7-11	" Tails	100.00		.0437	0.193	4.376	19.33	14.11	55.23
1	Feed	100.00		0.31	0.35	31.000	0.35	100.00	100.00

Total cyanide consumption = 0.60 lbs. per ton feed.

Showing an extraction of 85.89% of the gold and 44.77% of the silver.

REMARKS

THE GENERAL ENGINEERING CO.

PER J. M. Callow

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER
SALT LAKE CITY, UTAH

LOT 393 DATE December 1914

TEST 3

ORE TESTING DEPARTMENT
ASSAYS AND CALCULATIONS

OF Cyanide TEST ON Ore FROM J. E. Spurr, M.E. MINE

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS Gold	ASSAYS PER TON OF 2,000 POUNDS Silver	CONTENTS = ASSAY X PER CENT OF WEIGHT Gold	CONTENTS = ASSAY X PER CENT OF WEIGHT Silver	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Gold	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS Silver
	Another average portion of Sample #3 (-120 Mesh Slimes) was agitated 12 hours with 1-1/2 to 1 of a 2 lb. cyanide solution. Cyanide consumption = 0.2 lbs. per ton slimes.								
	TABLE VI								
3	Slime Feed		41.60	0.275	0/42	11.440	17.47	36.90	49.91
15	" Tails		41.60	0.025	0.08	1.040	3.33	3.35	9.51
14	Slime Extraction		41.60	0.250	0.34	10.40	14.14	33.55	40.40
	SUMMARY OF CRUSHING, LEACHING & AGITATING RESULTS								
	TABLE VII								
A	Crushing Extraction		100.00	0.108	.0176	10.800	1.76	34.84	5.03
6	Sands "		58.40	0.100	.06	5.840	3.51	18.84	10.03
14	Slimes "		41.60	0.250	.34	10.40	14.14	33.55	40.40
7	Sand Tails		58.40	0.05	.21	2.92	12.26	9.42	35.03
15	Slime "		41.60	0.025	.08	1.04	3.33	3.35	9.51
1	Feed		100.00	0.31	0.35	31.00	35.00	100.00	100.00
	SUMMARY OF TABLE VII								
	TABLE VIII								
-6-14	Total Extraction		100.00	0.27	0.194	27.04	19.41	87.23	55.46
7-15	" Tails		100.00	.0396	0.156	3.96	15.59	12.77	44.54
1	Feed		100.00	31.00	0.31	31.00	35.00	100.00	100.00

Total cyanide consumption = 0.60 lbs. per ton feed.
Showing an extraction of 87.23% of the gold and 55.46% of the silver.

HEADS

Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0.35	Trace	93.20	2.20

REMARKS

THE GENERAL ENGINEERING CO.
PER J. M. Callow

THE GENERAL ENGINEERING COMPANY

CONSULTING ENGINEERS

J. M. CALLOW, PRES. AND MANAGER

SALT LAKE CITY, UTAH

LOT 393

DATE December, 191 4.

TEST

ORE TESTING DEPARTMENT

ASSAYS AND CALCULATIONS

OF TEST ON FROM MINE

SAMPLE NO.	SAMPLES	WEIGHTS LBS. GRAMS	WEIGHTS PER CENT	ASSAYS PER TON OF 2,000 POUNDS	CONTENTS = ASSAY X PER CENT OF WEIGHT	PER CENT. OF TOTAL CONTENTS OF HEAD SAMPLE = PER CENT. OF RECOVERY OR LOSS

COMPARISON OF RESULTS OBTAINED IN VARIOUS TESTS

Method Employed	Cyanide Consp'n Per ton	Extraction % Au	Extraction % Ag	Final Tails Au	Final Tails Ag	$ Extracted per ton Gold @ $20.00, Silver @ 50¢
Crushing dry to 4 mesh, leaching for 80 hours	0.9 lbs.	72.58	37.14	.085	0.22	$4.565 = 71.61% Extr'n of gold & Silve
Same as above except Crushing to 16 mesh	0.75 lbs.	82.26	42.86	.055	0.20	$5.175 = 81.17% " " "
Same as above except Crushing to 30 mesh	0.95 lbs.	88.71	51.43	.035	0.17	$5.59 = 88.78% " " "
Crushing dry to 16 mesh, leaching for 48 hours, washing for 6 hours	0.60 lbs.	83.87	51.43	.05	0.17	$5.29 = 84.08% " " "
Same as above except leaching continued for 12 hours longer	0.60 lbs.	83.87	42.86	.05	0.20	$5.275 = 83.84% " " "
Same as above except leaching continued for 12 hours longer	0.80 lbs.	85.48	51.43	.045	0.18	$5.39 = 85.65% " " "
Crushing to 20 mesh wet in solution, separating into sands and slimes, leaching the sands for 36 hours and agitating the slimes with a 1 lb. solution	0.60 lbs.	85.89	44.77	.0437	0.193	$5.49 = 87.22% " " "
Same as above except slimes agitated with 2 lb.solution	0.60 lbs.	87.23	55.46	.0396	0.156	$5.505 = 87.45% " " "

HEADS

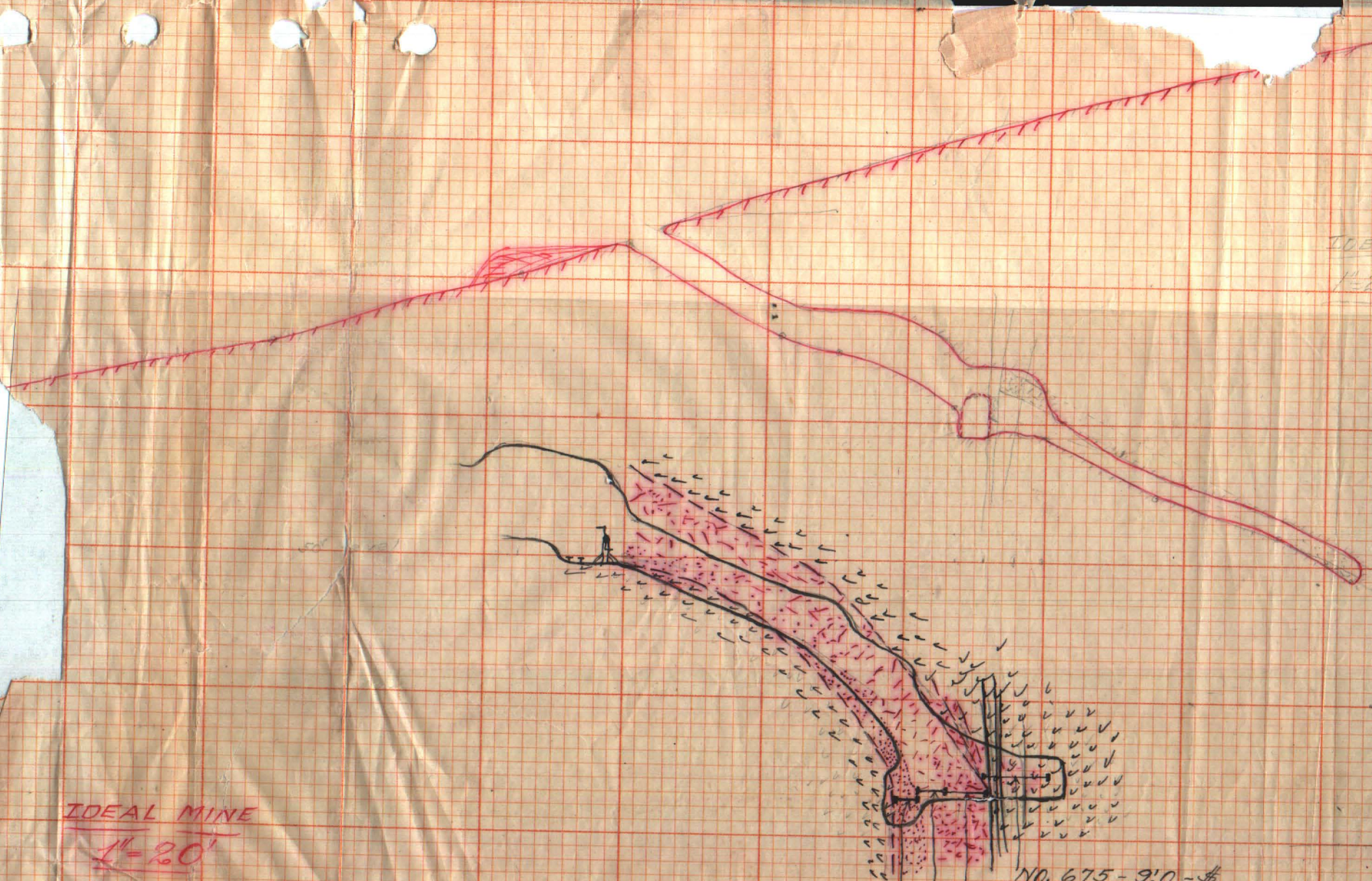
Gold oz.	Silver oz.	Copper%	Insol.%	Iron%
0.31	0,35	Trace	93.20	2.20

Sample furnished by Mr. J. E. Spurr

REMARKS Assaying by Union Assay Office.

THE GENERAL ENGINEERING CO.

PER J. M. Callow



IDEAL MINE
1"=20'

NO. 675 - 9.0 - ₰
NO. 674 - 6.0 - ₰
NO. 673 - 4.5 - ₰
NO. 672 - 3.5 - ₰

(Chiefly alt. and. - little qtz. & spar.)
(Spar - little qtz.)
(spar and quartz)
(Sugar Quartz and Spar - This is the #8 ore on tunnel level).

IDEAL MINE
1"=20' - Section thru
Shaft and Winze

THE TONOPAH MINING COMPANY OF NEVADA

572 BULLITT BUILDING, PHILADELPHIA, PA.

Ideal Mine

PLEASE ADDRESS ALL COMMUNICATIONS TO THE COMPANY

TONOPAH, NEVADA,

October 27, 1914

Mr. J. H. Evans,
Tonopah, Nevada.

Dear Mr. Evans:

Following are the notes for an option, which I would be glad if you would prepare this afternoon, the option being in favor of the Tonopah Mining Company and being given by Mr. H. A. Taylor and Raymond R. Eddy by J. A. Harvey his attorney in fact.

Messrs. Taylor and Eddy own outright two quartz mining claims in the Bell Mining District, Mineral County, viz:- Two Buckle and Ideal and they also own outright an undivided one-half interest in three adjacent claims, viz: Monster, Aviator and Buckeye. They also have an option on the other half of the last three named claims from R. L. Norris, which runs to November 12th, for the sum of $3,000.00, $1500.00 to be paid November 12th and $1500.00 on or before January 1, 1915. Messrs. Taylor and Eddy give us an option on their property for thirty days and transfer to us the option which they hold from R. L. Norris, on the following terms:

We to incorporate a new Company, to which these properties will be transferred, making the stock full paid and non-assessable. We then agree to issue one-third of the capital stock to Messrs. Taylor and Eddy. We further

agree, upon exercising this option, or as soon thereafter as may be agreed upon, to furnish sufficient capital to take up the option from R. L. Norris and furthermore to pay the debts upon the property already owned by Messrs Taylor and Eddy to the amount of not more than $4,000.00. We also agree to furnish sufficient capital to develop, equip and operate the property until such time as it shall be on a profit paying basis. These sums so advanced out of the treasury of the Tonopah Mining Company to be repaid out of the first profits of the new Company and thereafter all profits in the proportion of two-thirds to the Tonopah Mining Company and one-third to Messrs. Taylor and Eddy.

Yours very truly,

J. E. Spurr

JES-S.

Vice President.

THE TONOPAH MINING COMPANY OF NEVADA

572 BULLITT BUILDING, PHILADELPHIA, PA.

Ideal Mine
Mineral County Nev.

TONOPAH, NEVADA,

October 28, 1914

Mr. J. S. Austin, President,
Tonopah Mining Co. of Nevada,
Philadelphia, Pennsylvania.

Dear Sir:

Last Sunday, I inspected two mines lying about twenty miles north-east of Mina, and have taken an option on one of them and sent Birdevan out to give the property a thorough sampling. The property is a low-grade gold property and the terms of the option are that a two-thirds interest in the property is turned over to us, we to furnish, eventually, about $7,000.00 to satisfy debts on the property, which amount, together with further amounts which we may expend for equipment and operation up to the time that the property is on a profit paying basis, are to be returned to us out of the first profits.

I am also arranging with Mr. Heydenfeldt to make a mill test of the ore, promptly.

I will advise you as to the result of the sampling and mill tests.

Yours very truly,

J. E. S.

JES-S. Vice President.

Form 2089 0500 0009

NIGHT LETTER

THE WESTERN UNION TELEGRAPH COMPANY

INCORPORATED

25,000 OFFICES IN AMERICA CABLE SERVICE TO ALL THE WORLD

ROBERT C. CLOWRY, PRESIDENT BELVIDERE BROOKS, GENERAL MANAGER

RECEIVER'S No.	TIME FILED	CHECK

SEND the following NIGHT LETTER subject to the terms on back hereof which are hereby agreed to

Tonopah, Nevada, Nov. 5, 1914

James S. Austin,
572 Bullitt Building,
Philadelphia, Pennsylvania.

Referring letter twenty eighth regarding low grade gold property north east of Mina, examination shows low grade portion of vein developed seemingly regular, average two dollars fifty cents. Also higher grade shoot exposed seventy five feet long, full length not determined, averages eight dollars. Whole vein average width probably five feet. Values all gold. Heydenfeldt's first tests show eighty percent extraction crushing to quarter inch, thinks he can do better. Much of ore is like sand and make conditions mining and milling extraordinarily cheap. Present estimate of Blackburn, Heydenfeldt and myself is total costs two dollars. Have thirty day option and recommend doing development work at once in ore shoot. Can contract sinking ten dollars a foot, drifting five dollars. Please advise if you authorize proceeding. Payment obligations fifteen hundred dollars December twelfth, fifteen hundred January first next. Balance of debt amounting to four thousand dollars to be adjusted but no definite date set.

J. E. Spurr

Chg T.M.Co.

COPY

THE TONOPAH MINING COMPANY OF NEVADA

PHILADELPHIA

(190 Item 9

TONOPAH, NEVADA, February 6, 1915.

Mr. Hugh H. Brown,
Attorney at Law,
Tonopah, Nevada.

Dear Mr. Brown:

Subject: Ideal Property.

I have yours of February 5th regarding the Ideal property.

On study of the results of our development work at that property, and after conference with the mine officials who examined the work, I have come to the conclusion that the showing was not sufficiently favorable to warrant our proceeding further with the property.

I shall report accordingly to Mr. Austin at Philadelphia, advising him that I do not recommend further action.

Yours truly,

J. E. Spurr

Vice President.

JES:PR

Copy to Mr. Austin.

COPY

THE TONOPAH MINING COMPANY OF NEVADA

PHILADELPHIA

TONOPAH, NEVADA, February 6, 1915.

Mr. J. S. Austin, President,
The Tonopah Mining Company of Nevada,
572 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

The development work at the Ideal Mine exposed continuous ore, but the grade was low, so that it is a question in my mind as to whether or not it would pay. Under the circumstances, I do not advise proceeding further with this property.

I am enclosing copy of my letter to Mr. Hugh H. Brown on the subject in reply to his of February 5th on the same subject.

Yours very truly,

J. E. Spurr

Vice President.

JES:PR

encl

HUGH H. BROWN
ATTORNEY-AT-LAW
312-316 STATE BANK & TRUST CO. BUILDING
TONOPAH, NEVADA

February 5th, 1915.

Mr. J. E. Spurr,
Vice-President, The Tonopah Mining Co.,
C i t y.

Dear Mr. Spurr:-

In re Ideal property:-

Today Mr. Thos. J. Lynch delivered to me two written instruments, the general nature and purport of which are to the following effect:-

The several creditors of Harvey and his associates have entered into a written arrangement whereby they have appointed John H. Miller of Mina, as Trustee, to carry out a plan which will relieve the Ideal property of all litigation and suits for debt, and bring about a liquidation of the indebtedness out of the proceeds of the purchase price of the property in the event that The Tonopah Mining Company deal is consummated.

In other words, it is proposed that all creditors' suits be withdrawn; that any and all moneys arising from the disposition of the Ideal property be paid to Miller as Trustee, for the creditors and that Miller pay the creditors.

Steps will be taken to pass the whole land title to Miller as Trustee, and Miller as Trustee, is instructed to enter into an agreement for the passing of the title of the property to The Tonopah Mining Company.

The purpose of this letter is to advise you in the premises, and also to enlist your views and instructions, if you have any, as to whether The Tonopah Mining Company at this time desires to renew contractual arrangements looking toward an option for the purchase of this property.

If you instruct me to proceed in this behalf, then it will be necessary,as a first step, for Harvey and associates to furnish us with an abstract of title, as heretofore stated, in one of my letters on this subject.

I am mailing copy of this letter to Mr. Thomas J. Lynch, Mr. John H. Miller, Mr. J. A. Harvey and to Mr. J. Harvey Whiteman, General Counsel of The Tonopah Mining Company of Nevada, for their information.

Faithfully,

HUGH H. BROWN,

Per H.

HHB:K

COPY OF ORIGINAL AGREEMENT BETWEEN HARVEY & TAYLOR AND THEIR VARIOUS CREDITORS, DULY SIGNED AND EXECUTED, THE ORIGINAL COPY CAN BE SEEN OF RECORD AFTER FIVE DAYS FROM DATE, AND IN THE MEANWHILE IT CAN BE INSPECTED AT THE OFFICE OF Mr. H.R. COOKE.

KNOW ALL MEN BY THESE PRESENTS: That Harvey & Taylor. J.A.Harvey, A.G.Taylor, Raymond R.Eddy, known and styled as Harvey & Taylor of Luning, Mineral County State of Nevada, is indebted unto us, their several creditors, indivers sums of money, but by reason of their failure to make that certain mining property described as the "Ideal, Buckeye, Monster, Aviator and Twobuckle lode mining claims, situate in the Bell Mining District, Mineral County, State of Nevada, profitable as a workable mine; they have become unable to satisfy our demands and therefore we, the said creditors, have resolved and agreed to extend the time of payment until the first day of July 1915, and to accept Gold Coin of the United States, in the sum of one hundred cents on the dollar for every dollar owing by the said Harvey & Taylor, J.A.Harvey, A.G.Taylor and Raymond R.Eddy, to us, the several and respective creditors, aforesaid, in full satisfaction and discharge of our several and respective claims.

The following is a schedule of the debts and the names of the parties to whom due:--

J.N.Adams, as J.N.Adams Merc., Co.	$652.35
Costs of suit and Watchman	74.25
J.N.Adams Garnishment against Kane	136.65
Costs of suit against Kane	10.00
C.O.Valentine, Equitable Action	850.00
Costs of suit, not including receiver's fees	
Stock to be issued by a corporation taking over the property, to the extent of five hundred dollars, said stock to at the market price or not to exceedfive cents per share, in addition to the sum due Valentine and should there be a failure to deliver the st_ock, the additional payment of five hundred dollars in cash.	
W.E.Shedd for labor	$156.65
Frank Gillan for labor	148.00
Ed.Towers " "	17.35
E.Succetti " "	189.87
Tom Kinsella " "	109.00
Allen Mason, Lien,	111.60
Allen Mason	13.50
Allen Mason, board bill of Harvey, assigned by Mrs Mason to Allen Mason.	129.25
A.Frediani, Wood and Material and Horse hire	41.90
C.A.Porter labor	950.00
C.B.Jacobs "	825.00

It is further agreed, that the accounts of Porter and Jacobs may be submittede to arbitration, Porter and Jacobs choosing one arbitrator and Harvey and Taylor choosing one, the two so selected to select a third, and that the said accountsmay be submitted to them within thirty days after the signing of this agreement, and that any award made by said arbitrators shall be final and binding upon the parties hereto.

It is also agreed by C.O.Valentine, Ralph Hobbs Receiver appointed in the action wherein Valentone was Plaintiff and Harvey and Taylor defendants that the question of fees to be paid to said Ralph Hobbs, as Receiver, shall be submitted to said arbitrators and that the parties hereto will abide by such award as said arbitrators may make in the matter, and that the said Harvey and Taylor will pay such amount as said arbitrators shall award.

It is further agreed that the arbitrators, chosen ### as aforesaid shall meet either at Luning Nevada or Hawthorne Nevada, and make their award within thirty days after the signing of this agreement.

NOW, WE, THE SIAD CREDITORS, of the siad Harvey & Taylor, do for ourselves

severally and respectively,and for our several and respective heirs,executors administrators,promise and agree,to and with, the said Hravey and Taylor,by these presents,that we the said several and respective creditors,shall and will accept of and from the said Harbey & Taylor, J.A.Harvey,A.G.Taylor and Raymond R.Eddy,for each and every dollar that the said Harvey and Taylor does owe us,the said several and respective creditors,the sum of one hundred cents on the dollar,for each and every dollar the said Harvey & Taylor does owe us together with interest thereon at the rate of seven percent per annum from date of last item on account,until paid,in full discharge and satisfaction of the several debts and sums of money that the said Harvey & Taylor does owe us and stand indebted to us,to be paid unto us,the said several and respective creditors,on or before July 1st 1915,after the date of these presents.

It is further agreed in consideration of the above extension of time for the payment of the claims of the several and respective creditors,that the said Harvey & Taylor,J.A.Harvey, A.G.Taylor and Raymond R.Eddy,will execute a deed,conveying all of their said mining property to J.H.Miller of Hawthorne Nevada,in trust for the uses and benefit of the several and respective creditors,with instructions to pay to the several and respective creditors,the amount of their respective claims out of any money derived from the sale of the property aforesaid,and that they will also cause one Thomas J. Lynch,of Tonopah,Nevada, to execute and convey by deed,any property owned by Harvey & Taylor, J.A.Harvey, A.G.Taylor or Raymond R.Eddy or by himself as Trustee to the said J.H.Miller in trust as aforesaid. It is further agreed that the said Harvey and Taylor will instruct the said J.H.Miller,Trustee,and authorize him to sell said property on or after the first of July 1915,for any price which may be sufficient to satisfy the claims of the several and respective creditors.

Now,we, the several and respective creditors,do promise and covenant with the said Harvey and Taylor,that we will not hereafter sue or molest or trauble the said Harvey & Taylor,for any debt now due and owing to us,or any of us,so that the said Harvey and Taylor convey the property aforesaid to J.H Miller in trust as aforesaid,for us the said several and respective creditors so that the siad Harvey and Taylor by their said trustee ,well and truly pay or caused to be paid to us,the sum of one hundred cents on the dollar for each and every dollar they do owe us,on or before July 1st 1915,next ensuing the date hereof.

It is further agreed that in consideration of the deeding of the property aforesaid by Harvey and Taylor,that J.N.Adams and C.O.Valentine will dismiss the suits wherein they are plaintiffs and Harvey and Taylor defendants.

Dated this 31st day of Demember 1914.

(Signed) C.B.Jacobs)
C.A. Porter)
W.E.Shedd)**By Assignment
Tom Kinsella) to C.B.Jacobs.
E.Succetti)
Ed Towers)
F.S.Gillan
C.O.Valentine
J.N.Adams
A.R.Mason,
A.Frediani

Raymond R.Eddy,by J.A.Harvey his attorney in fact.
J.A.Harvey.
A.G.Taylor.

(Note) Deed as requested from Thomas JLynch Trustee was duly made and executed January 30th 1915.

Tonopah Nevada, January 28th 1915.

To J.H.Miller,Trustee,
Hawthorne,
Nevada,

Dear Sir:--

Your are hereby instructed and directed,to do and perform such things in carrying out the intention of that certain trust imposed in you; wherein Thomas J.Lynch Trustee, of Tonopah Nevada,did by deed January 28th,1915,vonvey to you certain mining property in trust,said property having been deeded to the said Thomas J.Lynch,as Trustee, by A.G.Taylor,Raymond R.Eddy,by J.A.Harvey attorney in fact,said deed being dated August 4th 1914.

Your are directed to hold said property,subject to a certain agree ment entered into by A.G.Taylor,Raymond R.Eddy and J.A.Harvey, and certain of their crdeitors,a copy of which said agreement is hereto attached and made a part of your instructions. You are further instructed that is said prpperty shall be bonded to any one or to any mining pompany,that siad optionee shall make all returns to you,and should any money from the proceeds of the property or from the proceeds of any ore mined on the property prior to July 1st 1915,come into your hands;you are instructed to pay the samd to the various creditors according to the tenor of that certain agreement before mentioned,and should there be any money in your hands after paying the creditors before mentioned,you are to pay the same to A.D.Taylor,Raymond R.Eddy,or J.A Harvey,his attorney in fact.

You are instructed not to enter into any agreement of option,lease or sale,or any agreemen whatsoever,concerning said mining claims until approved by said A.G.Taylor,Raymond R.Eddy and J.A.Harvey or their lawful agent. You are further instructed to execute any directions made by said A.G.Taylor, Raymond R.Eddy and J.A.Harvey,and to sign any deed option,lease or agreements relative to said property,which may direct, PROVIDED that such deed,option, lease or agreements shall be so conditioned as that not less than a sum equal to the aggregate amount actually due said creditors dall be paid by the said grantee, optionee or leasee,as the case may be,not later than July 1st 1915,in the event that such grantee,optionee or leasee desires to obtain possession of the property or keep alive the option or agreement after July 1st 1915.

Your are further instructed that any and all calims for compensation by you by reason of your acceptance of the trust hereby created,are to be borne and paid by the said creditors.

IN WITNESS WHEREOF, we have hereunto set our hands the year and day above written.

Raymond R.Eddy, by J.A.Harvey, his att'y in fact.

J.A.Harvey.

A.G.Taylor

DESERT POWER AND MILL COMPANY

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

Millers,
~~Tonopah~~ NEVADA. January 14, 1915.

J. E. Spurr, Vice Pres.,
572 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

Copy of Test No. 5, on Ideal ore made by the General Engineering Company, received.

The results set forth by their experiments as compared with those of the Desert Mill, check to a very close degree. They show that the residues, under similar conditions are practically the same, regardless of variation in treatment. The General Engineering Company, made one general sample, the results of which was applied to all tests giving a uniform head. We made several assays and samples for each lot tested. The ore evidently is spotty, in view of the fact that the heads varied from sample to sample, so that comparing all results, I still feel that in order to obtain better than 80 % extraction, the ore will have to be crushed to 65 mesh or finer, in which event all sliming will be the solution of the problem, unless the physical characteristics of the ore change upon further development. By this I mean that a more solid formation is encountered. In that event all sliming may present a more costly method of treatment.

Yours very ~~truly~~,

F. F. Heydenfeldt.

FFH:H

Act'g. Superintendent.

ORE TESTING

CEMENT TESTING

THE GENERAL ENGINEERING COMPANY

(INCORPORATED)

CONSULTING ENGINEERS

No. 159 PIERPONT AVENUE

PHONE WASATCH 3656

J. M. CALLOW, PRES.
JAS. W. NEILL, VICE-PRES.
GEO. M. BACON, TREAS.
ERNEST GAYFORD, SEC'Y
KARL BERNSON

SALT LAKE CITY, UTAH, January 11th, 1915.

J. E. Spurr, Vice President,
Tonopah Mining Company of Nevada,
Bullitt Bldg.,
Philadelphia, Pa.

Dear Sir:-

Replying to your favor of January 6th, with reference to our report on Our Lot #393 (Ideal Ore) we would state that there was no test #4, as this test was started and then abandoned, which fact should have shown on our report.

Yours truly,

THE GENERAL ENGINEERING COMPANY

Per Ernest Gayford

EG/M

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

J. H. W.

TONOPAH, NEVADA, December 31, 1914.

J. H. Whiteman, Vice President & Gen. Counsel,
The Tonopah Mining Company of Nevada,
572 Bullitt Building,
Philadelphia, Pa.

Dear Mr. Whiteman:

Replying to your favor of December 23rd relative to returns to the Industrial Commission for work done at the Ideal property:

Mr. Hugh Brown advised, in response to our inquiry on this subject, that no report be made for the contract work, but that report be made for the work which is paid for by our Company's checks. This ruling of Mr. Brown's agrees with that contained in your letter.

In this connection, please advise if you wish me to send you a copy of any requests on Mr. Brown of this nature. If Mr. Brown has not mailed a copy, would also be pleased to mail you copy of his reply.

With best wishes for a prosperous year 1915.

Yours truly,

T A Frazier

Chief Clerk.

TAF:PR

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA, December 21, 1914.

Mr. J. E. Spurr, Vice President,
The Tonopah Mining Company of Nevada,
571 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

Messrs. Harvey and Taylor were in today to talk about the Ideal property. Their remarks about Mr. Brown being satisfied with the shape they were getting the title into, do not quite correspond with Mr. Brown's statement of the matter. However, they seem to be making good progress, and Mr. Brown may be able to report in a few days that they will be able to give an option that will secure title. In case Mr. Brown so reports they are very anxious to be notified as soon as possible whether the Company wishes to again prospect the property.

This in view of the recent samples and information that we sent you.

Yours truly,

W H Blackburn

Superintendent.

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA, December 14, 1914.

Mr. J. E. Spurr, Vice President,
The Tonopah Mining Company of Nevada,
571 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

Mr. Sirdevan and myself visited the Ideal Mine on December 12th.

We ordered all work stopped that was being done on Company account, and while there took four samples, results of which are indicated on the enclosed print. The print also shows Winze No. 2, done since your visit to the property.

You will note that the highest assay is $6.60, and that Mr. Sirdevan has made a note that this particular sample is on the ore, corresponding to the ore on the tunnel level that ran $8.00 per ton.

Yours truly,

W W Blackburn

Superintendent.

WHB/PR
encl

ORE TESTING

CEMENT TESTING

THE GENERAL ENGINEERING COMPANY

(INCORPORATED)

CONSULTING ENGINEERS

No. 159 PIERPONT AVENUE

PHONE WASATCH 3656

J. M. CALLOW, PRES.
JAS. W. NEILL, VICE-PRES.
GEO. M. BACON, TREAS.
ERNEST GAYFORD, SEC'Y
KARL BERNSON

SALT LAKE CITY, UTAH, December 18th, 1914.

J. E. Spurr, Vice President,
Tonopah Mining Co. of Nevada,
Bullitt Bldg.,
Philadelphia, Pa.

Dear Sir:-

Herewith we beg to enclose report of additional tests made on your ore from the Ideal mine, with leaching at 18 hours, as per instructions in your letter of December 8th. We have sent copies of these figures to Mr. Heydenfeldt and also a copy of the comparison of results obtained in the previous tests reported on as shown on the last page of the report already furnished you. Should you wish us to also send him details of the previous tests we shall be pleased to do so.

Yours truly,

THE GENERAL ENGINEERING CO.

Per Ernest Gayford

EG/M

December 18th, 1914.

Mr. F. F. Heydenfeldt,

Millers, Nev.

Dear Sir:-

On December 8th we received a letter from Mr. Spurr requesting us to send you copies of figures from our tests on ore from the Ideal mine, in which letter he also requested us to make some additional tests.

We had previously reported to Mr. Spurr on our series of tests 1 to 4 on this ore. Series Test 5 we are reporting on to him to-day, and herewith enclose you a copy of the figures which we are sending him on this series. When we reported to Mr. Spurr on series 1 to 4 we furnished him the report in duplicate and we are not sure whether he has mailed you one of these copies. For fear that he may not have done so we are including the last sheet of our report on series 1 to 4 which contains a comparison of the results obtained. We also enclose copy of our letter to Mr. Spurr when we reported to him on this series.

Yours truly,

THE GENERAL ENGINEERING CO.

Per _____

EG/M

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA, December 18, 1914.

J. S. Austin, President,
The Tonopah Mining Company of Nevada,
572 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

Replying to your favor of December 9th, instructing us to charge all expense in connection with the operations of the Ideal property at Mina to the Philadelphia office, at the end of each month:

Expenses on account of this property have been charged into "Exploration Expense" and closed into the Philadelphia office each month.

These expenses have been as follows:

October	$140.87
November	172.81
Total	$313.68

Yours truly,

T A Frazier

Chief Clerk.

TAF:PR

THE TONOPAH MINING COMPANY OF NEVADA

572 BULLITT BUILDING, PHILADELPHIA, PA.

J. H. W.

PLEASE ADDRESS ALL COMMUNICATIONS TO THE COMPANY

TONOPAH, NEVADA.

December 17, 1914.

Mr. Hugh H. Brown,
State Bank & Trust Company Building,
Tonopah, Nevada.

Dear Mr. Brown:

Referring to contract made by this Company with Harvey and Taylor for work on the Ideal group of claims near Mina:

COPY

Prior to December 6th, the work done there was under contract to Messrs. Harvey and Taylor, who employed men to assist them. Since December 6th, Mr. Taylor and three other men worked on Company time and will be paid direct by this Company.

Will you pleased advise if we should make returns to the Industrial Commission for the work done under the Harvey and Taylor contract the same as we do for employees at our Tonopah mine, and also if the same ruling would apply to Mr. Taylor and others working on Company time since December 6th.

Yours truly,

Chief Clerk.

TAF: PR

HUGH H. BROWN
ATTORNEY-AT-LAW
312-316 STATE BANK & TRUST CO. BUILDING
TONOPAH, NEVADA

Dec. 16th, 1914.

Mr. J. Harvey Whiteman,
Mr. J. E. Spurr,
Mr. W. H. Blackburn,

Gentlemen:-

In re Ideal property:-

Today I am in receipt of a letter from J. A. Harvey, at Goldfield, under date 15th instant. The full text of Mr. Harvey's letter to me reads as follows:-

"Your letter of the 12th inst. relative to the Ideal mine affairs has just been rec'd, and forwarded on to Mr. Taylor.

"I am very sorry that the Tonopah Co. closed down, and I will do everything possible to get the business fixed up so that they can have what time they want for development work.

"I have just written Mr. Taylor to go and see the Plaintiffs and try and arrange with them on some satisfactory terms."

I send this to you for your information.

Faithfully,

HUGH H. BROWN,
Per K.

HHB:K

ORE TESTING

CEMENT TESTING

THE GENERAL ENGINEERING COMPANY
(INCORPORATED)

CONSULTING ENGINEERS

No. 159 PIERPONT AVENUE

PHONE WASATCH 3656

J. M. CALLOW, PRES.
JAS. W. NEILL, VICE-PRES.
GEO. M. BACON, TREAS.
ERNEST GAYFORD, SEC'Y
KARL BERNSON

SALT LAKE CITY, UTAH, December 12th, 1914.

J. E. Spurr, Vice President,
Tonopah Mining Co. of Nevada.
Bullitt Bldg.,
Philadelphia, Pa.

Dear Sir:-

We have your favor of December 8th with reference to the ore from the Ideal mine, on which we have made tests and reported to you recently. We note that you wish some tests at 18 hour contact. These we will start to-day and render you a report on the results obtained.

With reference to the last paragraph in your letter, in which you ask us to send copies of our letters on this subject to Mr. Heydenfeldt, pleasd advise us if you wish us to make out an additional copy of the report as already furnished you or whether you will send to him one of the duplicates which we have already mailed you. Should you prefer to keep both the copies which we have sent you in your office we shall be glad to make additional copies for Mr. Heydenfeldt, upon advice from you.

Yours truly,

THE GENERAL ENGINEERING CO.

Per Ernest Gayford

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

J.S.A.

TONOPAH, NEVADA, December 11, 1914.

J. S. Austin, President,
The Tonopah Mining Company of Nevada,
572 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

Referring to authorization contained in your night letter of December 9th for issuance of check here in favor of Harvey and Taylor, Contractors, for $262.60, and check in favor of Adams and Miller for $112.05.

After checking up the contractors' figures, we found that the amounts which we requested from you for checks here were in error, and that we owed the contractors $268.90. As Mr. Taylor is continuing work on the property on Company account and Mr. Harvey will remain in the Tonopah and Goldfield district for the present time, we made separate checks for Mr. Taylor and Mr. Harvey of $134.45 each. We called up the Tonopah Banking Corporation and told them that we had your authority to issue check in favor of Harvey and Taylor in the amount of $262.80, but that this amount had been changed, and asked that they honor the two checks for $134.45. A statement of this item will be mailed to you along with the Philadelphia office copy of voucher check.

At Harvey and Taylor's request, we made deduction and payment to Adams and Miller of an old account they owe them of $34.65. We have disregarded authority in your telegram, and have enclosed with today's cash report voucher check No. 7566, favor Adams and Miller, $146.70, which please have signed and forward on to them direct.

Yours truly,

T. A. Frazier

Chief Clerk.

TAF:PR

ORE TESTING

CEMENT TESTING

THE GENERAL ENGINEERING COMPANY
(INCORPORATED)

CONSULTING ENGINEERS

NO. 159 PIERPONT AVENUE

PHONE WASATCH 3656

J. M. CALLOW, PRES.
JAS. W. NEILL, VICE-PRES.
GEO. M. BACON, TREAS.
ERNEST GAYFORD, SEC'Y
KARL BERNSON

Ideal Mine

SALT LAKE CITY, UTAH, December 10th, 1914.

J. E. Spurr, M. E.,

572 Bluitt Bldg.,
Philadelphia, Pa.

Dear Sir:-

Herewith we beg to hand you the results of the tests we made on your sample of silicious gold ore, our Lot #393. We have summarized the results from the various tests on the last page of the report. The comparison of these different results are quite interesting and, if local conditions are favorable to such a treatment, the best method appears to us to be to crush to 20 or 30 mesh in cyanide solution, separate into sands and slimes, leach the sand and agitate the slimes. We think that in practice you would be safe on figuring a 90% extraction by this method.

We would draw your special attention to TABLE VIII, on sheet 2, which shows a comparison of the extraction obtained when leaching follows dry crushing at 4 and 16 mesh, from which you will notice that a very large percentage of the loss in the tailings after leaching is in the coarser sizes.

If there are any further tests you would like us to make on this ammple, we still have a small quantity reserved, but if you should wish much more work done we would need a further sample.

Yours truly,

THE GENERAL ENGINEERING CO.

Ernest Gayford

EG/M

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA. December 7, 1914.

J. E. Spurr, Vice President,
The Tonopah Mining Company of Nevada,
571 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

We returned from the Ideal mine today bringing Mr. Harvey with us.

The winze that you wished put down follows the foot wall on the pitch of the upper part of the vein about 30-feet. The vein then appears to commence to dip more steeply and at about 50-feet either is cut by faulting or the hanging wall stands almost at a vertical. Beyond the hanging wall there are still some spots of the sandy quartz. The winze at its end, (61-feet), gets out into the andesite.

As this turn in the vein made a vertical curve in the winze over which it will be impossible to do any very speedy windlassing, I stopped contract work. Harvey & Taylor also did not care to continue under the conditions.

Taylor will, at the bottom of the winze, cut back to the foot wall while we are waiting to hear from you, and also while we are trying to get an extension of time by some means or other.

We took three samples but they were hardly representative on account of the way the winze cuts across the vein. The work now under way will give us a chance for better sampling.

If we are to continue work and the vein is really going to be steeply pitching, I would suggest a small second hand 12-H.P. Hoist, gallows frame and buckets, which we can probably procure for $500.00, or less. Then start at the surface over the steep portion and go down with a shaft on the vein if possible. This would mean that we should have an extension of time by the creditors equal to the time of our option.

Yours truly,
W H Blackburn

WHB:PR Superintendent.

Ideal

Form 260

WESTERN UNION TELEGRAM

THEO. N. VAIL, PRESIDENT

RECEIVERS No.	TIME FILED	CHECK

SEND the following Telegram, subject to the terms on back hereof, which are hereby agreed to

December 9, 1914.

W. H. Blackburn, Supt.

Tonopah, Nev.

Stop development work at Ideal. Confer with Hugh Brown.

Complete Sampling.

J. E. Spurr.

Charge to
Tonopah Mining Co. of Nevada
Explo. Dept.

Ideal Mine

Form 2289 B

NIGHT LETTER

THE WESTERN UNION TELEGRAPH COMPANY

INCORPORATED

25,000 OFFICES IN AMERICA — CABLE SERVICE TO ALL THE WORLD

This Company **TRANSMITS** and **DELIVERS** messages only on conditions limiting its liability, which have been assented to by the sender of the following **Night Letter.** Errors can be guarded against only by repeating a message back to the sending station for comparison, and the Company will not hold itself liable for errors or delays in transmission or delivery of **Unrepeated Night Letters,** sent at reduced rates, beyond a sum equal to the amount paid for transmission; nor in any case beyond the sum of **Fifty Dollars,** at which unless otherwise stated below, this message has been valued by the sender thereof, nor in any case where the claim is not presented in writing within sixty days after the message is filed with the Company for transmission.

This is an **UNREPEATED NIGHT LETTER,** and is delivered by request of the sender, under the conditions named above.

THEO. N. VAIL, PRESIDENT — BELVIDERE BROOKS, GENERAL MANAGER

RECEIVED AT

TONOPAH MINING CO. OF NEVADA
MINING AND EXPLORATION DEPARTMENTS
REC'D DEC -9 1914
SEEN
ANS'D

87-P LR 77 NL TNL

TONOPAH NEV DEC 7-14 8-14

J E SPURR

571 BULLITT BLDG PHILA.

IDEAL VEIN APPEARS TO HAVE STRAIGHTENED UP, SIXTY ONE FEET OF WORK WENT FROM FOOT THROUGH HANGING AT END OF WINZE, APPARENTLY SAME WIDTH OF VEIN, ASSAYS NOT OUT, STOPPED CONTRACT AND WILL CUT ACROSS VEIN AT BOTTON WINZE, DAYS PAY, THINK FURTHER DEEPER DEVELOPMENT WILL NEED SMALL HOIST ADVISE IMMEDIAELY IF HARVEY AND OURSELVES SHALL TRY FOR LONGER TIME FOR DEVELOPMENT WORK AND HOW SHORT A TIME WILL BE ACCEPTABLY WOULD TRY FOR FIVE MONTHS ANYWAY

W H BLACKBURN

555-P

Ideal Mine

Form 2289 B

WESTERN UNION

NIGHT LETTER

GEORGE W. E. ATKINS, VICE-PRESIDENT NEWCOMB CARLTON, PRESIDENT BELVIDERE BROOKS, VICE-PRESIDENT

RECEIVED AT N. W. Cor. 15th and Chestnut Sts., Philadelphia

C56CH BZ 81NL

TONOPAH NEV DEC 8 1914

J E SPURR

571 BULLITT BLDG PHILADELPHIA PA

IDEAL WINZE TWENTY EIGHT FEET AT TWENTY FIVE DEGREES, THEN THIRTY THREE FEET AT THIRTY FIVE DEGREES. WINZE LEAVES FOOTWALL AT TWENTY FIVE FEET, AND CUTS NEARLY VERTICLE H PANGING WALL AT FIFTY SEVEN FEET, THREE FEET NEXT HANGING AT BOTTOM ASSAYS FOUR DOLLARS TWENTY CENTS, SIX FEET NEXT FOOTWALL AT DEPTH TWENTY FIVE FEET ASSAYS THREE DOLLARS TWENTY CENTS, CROSSCUT NOW BEING DRIVEN AT BOTTOM OF WINZE TO FOOTWALL, ABOUT ~~SAMPLES~~ VE SAMPLES. NOT CONCLUSIVE, WHEN CROSSCUT FINISHED WILL SAMPLE VEIN FULL WIDTH

W H BLACKBURN

DEC 9 356AM

TONOPAH MINING CO. OF NEVADA
ALWAYS OPEN
MINING AND EXPLORATION DEPARTMENTS
REC'D DEC 10 1914
SEEN
ANS'D

Philadelphia, December 8, 1914.

Subject: Ideal Mine.

General Engineering Co.,
159 Pierpont Avenue,
Salt Lake City, Utah.

Dear Sirs:

With reference to yours of December 1st, relative to leaching tests on siliceous ore sent you:

I am of the opinion that a straight leaching treatment would probably be best for this ore, on account of the simplicity and cheapness, as much of the ore is lower grade than that sent you.

In your series of time tests will you please make a test as low as 18 hours.

Will you please send copies of your letters on this subject to Mr. F. F. Heydenfeldt, Millers, Nevada.

Yours very truly,

ORIGINAL SIGNED
J. E. SPURR

Vice President

JES-C

cc

FFH

Philadelphia, December 1, 1914.

Mr. W. H. Blackburn, Supt.,
Tonopah Mining Co. of Nevada,
Tonopah, Nevada.

Dear Sir:

I have yours of November 27th, with forms relative to water filing at the Ideal Mine. In regard to the observations you made regarding the necessity of stating the date and type of construction contemplated, it seems to me that this would be fulfilled if we state what we intend to do in the spring. In case, of course, we should not carry out our intentions at that time our rights to the water would lapse.

I am accordingly returning you the filing paper with some penciled suggestions, leaving it, however, for you to fill it out formally and proceed with the filing. If there is any objection thereto the State Engineer will notify us.

Yours very truly,

ORIGINAL SIGNED
J. E. SPURR

Vice President

JES-C

Ideal Mine

J. S. AUSTIN, PRESIDENT. C. A. HIGBEE, SECY AND TREAS. W. H. BLACKBURN, SUPERINTENDENT W. W. CHARLES, COMPTROLLER

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA November 27th 1914

Mr. J. E. Spurr, Vice President
The Tonopah Mining Company of Nevada
571 Bullitt Building
Philadelphia, Pa.

Dear Sir:-

After going over the forms received from the State Engineer's office by Mr. Harvey relative to water filing at the Ideal mine we did not make the survey, as it appears to us that we are not sure enough of taking the property to be able to comply with the requirements by the State Engineer's office. You will note that the forms require statement of what use and how soon, kind of construction; That the State Engineer fixes a date on which construction must commence and be finished.

One of the forms is enclosed for your inspection, and if you say to go ahead kindly return same for our use and I will immediately go ahead with the filing. It appears to me that our filing will be of no force unless we commence use of water.

Sirdevan says that his assays on the Klondyke or Table Mountain property are discouraging both as to gold and copper.

I expect to go down to the Ideal just as soon as I receive an answer to this letter.

Yours truly

W H Blackburn

Superintendent

Ideal

ORE TESTING

CEMENT TESTING

THE GENERAL ENGINEERING COMPANY

(INCORPORATED)

CONSULTING ENGINEERS

No. 159 PIERPONT AVENUE

PHONE WASATCH 3656

J. M. CALLOW, PRES.
JAS. W. NEILL, VICE-PRES.
GEO. M. BACON, TREAS.
ERNEST GAYFORD, SEC'Y
KARL BERNSON

SALT LAKE CITY, UTAH, December 1st, 1914.

J. E. Spurr, Vice President,
Tonopah Mining Co. of Nevada,
572 Bluett Bldg., Phila., Pa.

Dear Sir:-

We now have the results from the first series of leaching tests on the silicious sample you sent us. We made three tests, one at 1/4 mesh crushing, one at 16 and one at 30. The time of leaching was the same in each case, namely 80 hours. Our report will show the following results from these three tests:

	HEADS		TAILS		EXTRACTION	
	Gold oz.	Silver oz.	Gold oz.	Silver oz.	Gold oz.	Silver oz.
1/4 Mesh crushing	0.31	0.35	0.085	0.22	72.58%	37.14%
16 " "	0.31	0.33	0.055	0.20	82.26%	42.86%
30 " "	0.31	0.33	0.035	0.17	88.71%	51.43%

The cyanide consumption in each case was a trifle under one pound per ton.

We have in progress another series of tests which will be taken off at 48, 72 and 84 hours to ascertain the correct length of time for leaching.

The ore apparently leaches very freely, even at 30 mesh crushing, but we have in mind, however, having determined the minimum time for leaching, to try some intermediate crushings between 1/4, 16 and 30.

There would be another method of treating this ore which would overcome the objection to dry crushing, and that would be to crush to 30 or 40 mesh, separate into sands and slimes, agitate the slimes, then treat them by continuous decantation and leach the sands, and we would like advice from you as to how thoroughly you wish us to go into this matter.

Yours truly,
THE GENERAL ENGINEERING CO.
Per Ernest Gayford

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

J. H W

TONOPAH, NEVADA, December 1, 1914.

J. E. Spurr, Vice President,
The Tonopah Mining Company of Nevada,
572 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

Mr. Evans informs me that we will have to take some action before the 12th inst. about the Ideal Mine case. He says that if we cannot get an extension of time, if needed, that we might intervene as optionees. It appears that the thirty days ran from the 12th.

I have written Harvey to put up a raise to the hanging wall on the 6th, so that we can sample clear across the vein on that date. The raise to be from the bottom of the winze.

After getting the assays we will telegraph you results. Also, more about the case in court.

Yours truly,

W W Blackburn

Superintendent.

WHB:PR

COPY

Ideal Mine

November 25th, 1914.

J. E. Spurr, Vice President,
Tonopah Mining Co. of Nevada,
Tonopah, Nevada.
572 Bluitt Bldg., Phila., Pa.

Dear Sir:-

With reference to the sample of gold ore that you sent us for leaching tests, we find that the sample, as we received it, has the following analysis:-

Gold	0.31 oz.
Silver	0.35 oz.
Copper	Trace
Insol.	93.2%
Iron	2.2%

We have some leaching tests in progress, at 1/4, 1/8 and 1/16 crushing, the results from which we expect to have out Saturday night. The cyanide consumption appears to be extremely low. We notice that the ore is very highly silicious and, if it should not respond to comparatively coarse crushing and leaching, it looks to us to have sufficient values for all sliming agitation.

We will mail you the results on your sulphide sample next Monday. We are doing further work on the oxide sample, hoping to be able to get the tailings lower than we have been at present as, although in one case we obtained a tail running $1.00, our other tests have run considerably higher, up to $2.00, and we do not want to send in our report until we can maintain a constant tailings. We might state that the results from straight cyanidation on the sulphide ore have been extremely encouraging.

Yours truly,

THE GENERAL ENGINEERING CO.

Per _____

Form 18-12M-6-13

LOT 1588 SAN FRANCISCO JUL 3 1914

RETURNS OF Zn Shavings RECEIVED OF J. A. Harvey BY

SELBY SMELTING AND LEAD COMPANY

OFFICE: MERCHANTS EXCHANGE BUILDING

Mark

Car Express

Arrived 6/29/14

1 Sacks weighing gross burned 66½ lbs.

Samples "

Tare—Sacks _____ "

Moisture 3.6 2.4 "

NET WEIGHT 64.1 "

ASSAY PER TON

Gold	1291.50	ozs.
Silver	524.10	ozs.
Lead		%
Copper (wet)		%
Silica		%
Iron		%
Zinc		%

SAMPLES	GOLD	SILVER
Orig.	1287.40	517.80
Dup.	1295.60	530.40

PERCENTAGES AND PRICES

Less 2½ % @ 20.50

Less 5 % @ 56¾

Less % @

Less @ per lb. Less =

Excess over % @ per unit

Treatment

Totals

Value Per Ton

DEBITS	CREDITS
	25813 85
	282 55
	26096 40
	836 39
10 00	
5 00	
2 35	
17 35	
	819 04

Value of 64.1 lbs. @ 26096.40 per ton

Sampling, Assaying

Reducing

Freight, Express

Totals

Settlement made on quotations of 7/1/14

VC Luning, Nev.

NET PROCEEDS

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA November 23rd 1914

Mr. J. E. Spurr, Vice President
The Tonopah Mining Company of Nevada
571 Bullitt Building
Philadelphia, Pa.

Dear Sir:-

Enclosed is copy of settlement sheet on product from the Ideal Group of claims. This was handed to me by Mr. Harvey.

Yours truly

J A Frazier

Chief Clerk

Encl:

Mina, Nevada, November 18th 1914

This agreement made and entered into this 18th day of November 1914, between J. A. Harvey and A. G. Taylor and The Tonopah Mining Company of Nevada: J. A. Harvey and A. G. Taylor agree to sink a winze 3 x 5 feet for a depth of 50 feet at the rate of $11.00 per foot; to drift from this winze at the rate of $5.00 per foot, or to crosscut from above winze at the rate of $6.00 per foot. It is understood that Harvey and Taylor shall furnish all supplies for the work.

Work to be prosecuted continuously with two shifts from present date until December 18th 1914.

This work is to be done in the Ideal tunnel on the Ideal group of claims.

(Sgd) J. A. Harvey

(Sgd) A. G. Taylor

(Sgd) Tonopah Mining Co. of Nevada
by W. H. Blackburn
Supt.

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

Ideal

WSP

TONOPAH, NEVADA, November 20th 1914

Mr. J. S. Austin, President
The Tonopah Mining Company of Nevada
572 Bullitt Building
Philadelphia, Pa.

Dear Sir:-

Enclosed is copy of contract made for some work to be done on the Ideal Group of claims near Mina. This copy is sent to you for your information and for the Philadelphia office files.

Work on this property was started on the instructions of Mr. Spurr when here. On his authority we advanced $98.00 to the contractors.

We have authorized Adams & Miller, merchants, at Mina, to extend credit to Harvey & Taylor for supplies not to exceed $100.00, and we have authorized them to cash time checks for men employed by these contractors, such time checks to be immediately sent to this office when we will reimburse them. This was necessary, as Harvey & Taylor (the principal owners of the claims) have no money, and the above expenses are to be deducted when making settlement for the work done under the contract.

"Option to Purchase" papers etc. will be sent to you by Mr. Blackburn and Mr. Brown's office.

Yours truly

J A Frazier

Chief Clerk

Encl:

THE TONOPAH MINING COMPANY OF NEVADA

572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS TO THE COMPANY

TONOPAH, NEVADA,

November 20th 1914

Adams & Miller

Mina, Nevada

Dear Sirs:-

When our Superintendent, Mr. Blackburn, was in Mina the other day he advised you that we would reimburse you for time checks cashed when presented for employees of Messrs Harvey and Taylor on their contract on the Ideal Group of claims near Mina.

I do not like to issue a blanket authority, and for this reason will limit this authority to One Hundred Dollars ($100.00), and with the understanding that this authority to be used only for men quitting or discharged, as otherwise employees will be paid by regular bank check by the Contractors or by the Company. If you will advise us each time a time check is honored by you, we will reimburse you by return mail.

We thank you for your kind offer to cash these time checks for us.

Yours truly

Chief Clerk

J. S. AUSTIN, PRESIDENT C. A. HIGBEE, SEC'Y AND TREAS. W. H. BLACKBURN, SUPERINTENDENT W. W. CHARLES, COMPTROLLER

THE TONOPAH MINING COMPANY OF NEVADA

572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS TO THE COMPANY

TONOPAH, NEVADA,

November 19th 1914

Copy for Mr. J. E. Spurr

Mr. J. S. Austin, President
The Tonopah Mining Company of Nevada
572 Bullitt Building
Philadelphia, Pa.

Dear Sir:-

COPY

Enclose herewith options in connection with the Ideal Group near Mina.

As Mr. Spurr will not be in Philadelphia for some time, I am sending these options to you direct.

One copy of each of the two options should be returned to us to give Mr. Lynch and Harvey & Taylor.

Yours truly

W W Blackburn

Superintendent

Encl:

Ideal

THE TONOPAH MINING COMPANY OF NEVADA

EASTERN OFFICE
572 BULLITT BUILDING, PHILADELPHIA, PA.

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE COMPANY, TONOPAH, NEVADA

TONOPAH, NEVADA November 19th 1914

Mr. J. E. Spurr, Vice President
The Tonopah Mining Company of Nevada
572 Bullitt Building
Philadelphia, Pa.

Dear Sir:-

On receipt of yours of November 15th from Reno I looked up Mr. Harvey and notified him that he and Taylor could go to work.

Yesterday we advanced Harvey $100.00, and then I took him to Mina and the mine, where we fixed up a contract for the work at $11.00 per foot on the winze, $5.00 per foot for drifting and $6.00 per foot for crosscutting, They start work to-day and will furnish all supplies.

Thirty days will be a very short period in which to do the necessary work.

The options are signed, and have been sent to Mr. Austin, as they require his signature. One copy should be returned to us to give Harvey and Taylor.

Mr. Harvey said you wished an option from Robt. D. Emmet in connection with the Table Mountain Group, so the option is enclosed.

Sirdevan will have to make another trip with proper instruments to make the survey for water filing.

Yours truly

W W Blackburn

Superintendent

Encl:

November 5, 1914.

Mr. J. S. Austin, President,
The Tonopah Mining Company of Nevada,
571 Bullitt Building, Philadelphia.

Dear Mr. Austin:-

Per the mequest telephoned by Mr. Spurr this afternoon, I am enclosing you herewith copies of option from R. L. Morris to Taylor and Eddy, and option from Taylor and Eddy to the Company. One copy of the former option is this day being mailed to the Recorder of Mineral County for recordation. You will note that the latter option has been fully executed as to both copies by all parties except the Company.

With kind regards, I am

Faithfully,

JHE/e.

HUGH H. BROWN
ATTORNEY-AT-LAW
312-316 STATE BANK & TRUST CO. BUILDING

Ideal

TONOPAH, NEVADA. November 5, 1914.

Mr. J. E. Spurr,
Tonopah Mining Company,
Tonopah, Nevada.

Dear Mr. Spurr:-

Pursuant to your telephone message I have this day forwarded to Mr. Austin both executed copies of the option from Messrs. Taylor and Eddy to the Company and one executed copy of the option from Mr. Morris to Messrs. Taylor and Eddy. Carbon copy of my letter is enclosed herewith.

I also enclose you under one cover copies of each of these options, together with the acknowledgments.

Faithfully,
J. H. Evans

JHE/e.

P. S. - You will note the Morris option is for thirty days from October 28, but the first payment is not to be made until ~~Novem-~~ Decem-ber 12. In this connection we would advise that if you intend to purchase under these options that notice be sent to all the parties in plenty of time to reach all of them before November 26 by registered mail, advising them you intended to purchase under the options and further that on December 12, Mr. Morris would receive the first instalment of $1,500.00.

JHE.

TELEPHONE WASATCH 185

Hand Sample Serial 31329-

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr Lot 393-

RESULTS PER TON OF 2000 POUNDS

Nov. 20, 1914.

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
Heads Resample-													
		0.310		0.35									

Remarks

Charges $

C A Selby

TELEPHONE WASATCH 185

Hand Sample Serial.....

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine.....

.....

RESULTS PER TON OF 2000 POUNDS

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
	Tails 5 F-	0.020		0.18									
	Tails 5 G-	0.015		0.25									
	Tails 5 H-	0.015		0.2									
	Tails No.3-	0.085		0.22									
	Tails No.5-	0.055		0.2									
	Tails No.7-	0.035		0.17									

Remarks.....

.....

Charges $.....

TELEPHONE WASATCH 185

Hand
Sample Serial 31390-408

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr Lot 393 Test 1-

RESULTS PER TON OF 2000 POUNDS

Nov. 27, 1914.

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
Heads	1 A-	0.335		0.53									
Heads	1 B-	0.320		0.43									
Heads	1 C-	0.275		0.43									
Heads	1 D-	0.230		0.37									
Heads	1 E-	0.200		0.25									
Heads	1 F-	0.220		0.28									
Heads	1 G-	0.490		0.5									
Heads	1 H-	0.590		0.7									
Tails	5 A-	0.120		0.38									
Tails	5 B-	0.090		0.36									
Tails	5 C-	0.065		0.29									
Tails	5 D-	0.040		0.26									
Tails	5 E-	0.020		0.18									

Remarks

Charges $

M. S. Hanauer

TELEPHONE WASATCH 185

Hand
Sample Serial 31490-91

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr Lot 393-Test 2

December 3, 1914.

RESULTS PER TON OF 2000 POUNDS

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
3-	Tails	0.050		0.17									
5-	Tails	0.050		0.2									

Remarks

Charges $

M S Hanauer

TELEPHONE WASATCH 185

Hand
Sample Serial 31492–5

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr Lot 393–Test 3

RESULTS PER TON OF 2000 POUNDS

December 3, 1914.

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
2–	+120	0.150		0.27									
3–	–120	0.275		0.42									
9–	Tails	0.0325		0.17									
11–	Tails	0.035		0.17									

Remarks

Charges $

M S Hanauer

TELEPHONE WASATCH 185

Hand Sample Serial 31519-

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr- Lot 393 Test 2-

Dec. 4th, 1914-

RESULTS PER TON OF 2000 POUNDS

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
7-	Tails-	0.045		0.05									

Remarks

Charges $

J. V. Sadler

TELEPHONE WASATCH 185

Hand Sample Serial 31300–

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
G. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr Lot 393–

RESULTS PER TON OF 2000 POUNDS

Nov. 18th, 1914–

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
Heads–		0.310		0.35		Trace	93.2				2.2		

Remarks

Charges $

C. A. Selby

TELEPHONE WASATCH 185

Hand Sample Serial 51518-

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
C. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr- Lot 393 Test 3-

RESULTS PER TON OF 2000 POUNDS

Dec. 4th, 1914-

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
7-5-	Tails-	0.050		0.21									

Remarks

Charges $

J. V. Sadler

TELEPHONE WASATCH 185

Hand Sample Serial 31551-2

ASSAY CERTIFICATE

UNION ASSAY OFFICE, INC.

M. S. HANAUER, PRES. J. V. SADLER, V.-PRES. & TREAS.
G. A. SELBY, SEC'Y.
SALT LAKE CITY, UTAH.

Mine Spurr Lot 393, Test 3

Dec. 5, 1914.

RESULTS PER TON OF 2000 POUNDS

78042 THE F. W. GARDINER CO. PRESS, SALT LAKE

NO.	CLASS	GOLD Ozs. per Ton	VALUE GOLD	SILVER Ozs. per Ton	LEAD Per Cent.	COPPER Per Cent. Wet	INSOL. Per Cent.	ZINC Per Cent.	SULPHUR Per Cent.	SPEISS Per Cent.	IRON Per Cent.	Per Cent.	Per Cent.
13	-Tails-	0.040		0.16									
15	-Tails-	0.025		0.08									

Remarks

Charges $

M S Hanauer

190
item1

FOR AND IN CONSIDERATION of the sum of one dollar ($1.00) lawful money of the United States to me in hand paid, the receipt whereof is hereby acknowledged, I have granted, and by these presents do grant, unto A. G. TAYLOR and RAYMOND R. EDDY, for the period of thirty days from the date hereof, the rightand option to purchase the undivided one half interest owned by me in the "MONSTER", "AVIATOR", and "BUCKEYE", lode mining claims situate in the Bell Mining District, County of Mineral, State of Nevada, for the sum of three thousand dollars ($3,000.00), half payable on the twelfth day of December, 1914, and half payable on the first day of February, 1915.

IN WITNESS WHEREOF, I have hereunto set my name and deal this twenty eighth day of October, A. D. 1914.

R. L. Morris

STATE OF NEVADA,)
: - ss.
County of Mineral.)

On this twenty eighth day of October, A. D. 1914, personally appeared before me, a notary public in and for the County of Mineral, State of Nevada, R. L. MORRIS, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my name and affixed my Official Seal, the day and year in this certificate first above written.

(seal)

A. C. ROACH

Notary Public in and for the
County of Mineral,
State of Nevada.

THIS AGREEMENT made and entered into this twenty seventh day of October, 1914, by and between ~~H.~~ A. G. TAYLOR and RAYMOND R. EDDY (by J. A. HARVEY, his attorney in fact), of the Bell Mining District, Mineral County, Nevada, the parties of the first part, and THE TONOPAH MINING COMPANY OF NEVADA, a corporation organized under the laws of the State of Delaware, and rightfully doing business in the State of Nevada, the party of the second part,

W I T N E S S E T H :

WHEREAS, the parties of the first part are the owners in fee simple of those two certain lode mining claims situate in the Bell Mining District, Mineral County, Nevada, recorded, known and designated as the "TWO BUCKLE" and "IDEAL" lode mining claims; and

WHEREAS, said parties of the first part are also the owners in fee simple of an undivided one half interest in and to those certain three lode mining claims situate in said Bell Mining District, Mineral County, Nevada, recorded, known and designated as the "MONSTER", "AVIATOR", and BUCKEYE" lode mining claims adjacent to said "TWO BUCKLE" and "IDEAL" lode mining claims; and

WHEREAS, said parties of the first part are also the owners and holders of an option to purchase the remaining undivided one half interest in and to said "MONSTER", "AVIATOR", And "BUCKEYE" lode mining claims from R. L. MORRIS, the owner in fee simple of said remaining undivided one half interest, which said option runs to the twelfth day of ~~November~~ December, 1914, and calls for a total payment of three thousand dollars ($3,000.00) to be paid for said undivided one half interest belonging to said R. L. Morris, to be paid fifteen hundred dollars ($1,500.00) on ~~November~~ December 12, 1914, and fifteen

A.C.R.

A.C.R.

A.C.R.

hundred dollars ($1,500.00) on ~~January~~ February 1, 1915; and

WHEREAS, the parties of the first part desire to grant an option upon said mining claims and assign the option owned by them to said party of the second part, -

NOW, THEREFORE, for and in consideration of the covenants and agreements hereinafter set forth the parties hereto mutually agree and covenant as follows:

1. The parties of the first part hereby grant to the party of the second part the right and option, for a period of thirty days from the date hereof, to purchase said lode mining claims and the interests therein owned by them, and hereby assign to said party of the second part the option to purchase the undivided one half interest, hereinabove referred to, belonging to R. L. Morris;

2. In the event that the party of the second part exercises the option hereby granted, it agrees that it will upon such exercise, or as soon thereafter as may be agreed upon, organize a new corporation, and transfer all the property hereinabove described to said corporation hereafter to be formed, and to issue to the parties of the first part one third of the authorized capital stock of said corporation hereafter to be formed, and to furnish sufficient capital to take up said option from R. L. Morris to said parties of the first part, and to pay all the debts upon the property of which said parties of the first part are the owners in fee simple to an amount not to exceed the sum of four thousand dollars ($4,000.00);

3. In the event that the party of the second part exercises the option hereby granted, said party of the second part agrees that it will furnish sufficient capital to develop, equip, and operate the property hereinabove described until such property

shall be upon a profit-paying basis;

4. It is mutually understood and agreed by and between the parties hereto that any and all sums paid by the party of the second part under the provisions of paragraphs 2 and 3 of this agreement, are to be repaid to the party of the second part from and out of the first profits of said corporation hereafter to be formed, and after said sums have been repaid then all profits are to be paid in the proportion of two-thirds (2/3) to the party of the second part and one-third (1/3) to the parties of the first part;

5. The parties of the first part warrant that they are the owners of the option referred to and that they and said R. L. Morris are the owners in fee simple of said property as hereinabove set forth and described.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first hereinabove set forth.

A. G. TAYLOR

RAYMOND R. EDDY

By J. A. HARVEY
His attorney in fact.

THE TONOPAH MINING COMPANY OF NEVADA,

By _____
Its President.

By _____
Its Secretary.

STATE OF NEVADA,)
: - ss.
County of Mineral.)

On this twenty eighth day of October, A. D. 1914, personally appeared before me, a notary public in and for the County of Mineral, State of Nevada, A. G. TAYLOR, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, the day and year in this Certificate first above written.

A. C. ROACH

(seal)

Notary Public in and for the
County of Mineral,
State of Nevada.

STATE OF NEVADA,)
: - ss.
County of Nye.)

On this twenty seventh day of October, A. D. 1914, personally appeared before me, a notary public in and for the County of Nye, State of Nevada, J. A. HARVEY, known to me to be the person whose name is subscribed to the within instrument as the attorney in fact of Raymond R. Eddy, and acknowledged to me that he subscribed the name of the said Raymond R. Eddy thereto as principal, and his own name as attorney in fact, freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, the day and year in this Certificate first above written.

(seal) T. A. FRAZIER

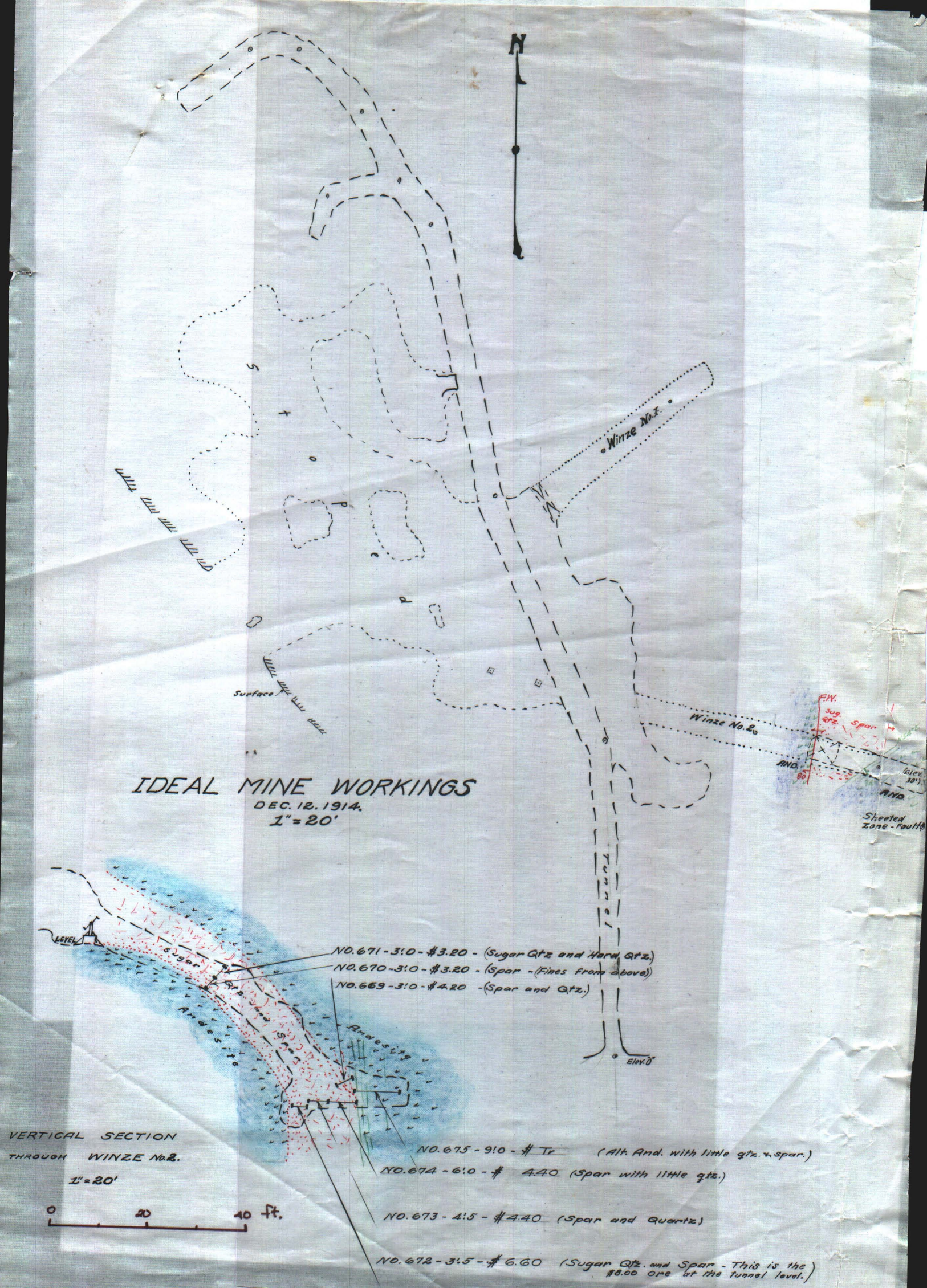
Notary Public in and for the
County of Nye, State
of Nevada.

STATE OF PENNSYLVANIA,)
: - ss.
City of Philadelphia.)

On this day of November, A. D. 1914, personally appeared before me, WM. F. HENSHAW, a Commissioner of Deeds for the State of Nevada, resident in the City of Philadelphia, State of Pennsylvania, J. A. AUSTIN and C. A. HIGBEE, known to me to be the President and Secretary, respectively, of the corporation that executed the foregoing instrument, and each upon oath, did depose that he is the officer of said corporation as above designated; that he is acquainted with the seal ~~affixed~~ of said corporation and that the seal affixed to said instrument is the corporate seal of said corporation; that the signatures to said instrument were made by officers of said corporation as indicated after said signatures; and that the said corporation executed the said instrument freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, the day and year in this certificate first above written.

Commissioner of Deeds for the State of Nevada, at Philadelphia, Pennsylvania.



IDEAL MINE WORKINGS

DEC. 12. 1914.

1" = 20'

VERTICAL SECTION THROUGH WINZE No.2.

1" = 20'

FORM 3077B-3-14

DESERT POWER AND MILL COMPANY

ASSAY CERTIFICATE

"IDEAL MINE"

SAMPLE NO. 1

MILLERS, NEVADA, Nov. 5, 1914. 19

SAM. NO.	SAMPLES TAKEN FROM	GOLD		SILVER		TOTAL VALUE PER TON	PERCENTAGE OF	
		OZS. PER TON	VALUE PER TON	OZS. PER TON	VALUE PER TON		Lbs. per TON Cao	KCn
	800 Grams ore ground to pass four mesh and leached 17--1/4 hours.							
	Leaching ratio: Three of solution to one of ore							
	Heads	.24	4.80	.48	.24	5.04		
	Strength of Solution heads							3#
	After 17--1/4 hours leaching:							
	Tails	.05	1.00	--	---	1.00		
	Strength of Solution, tails						0.2#	2.8#

No intermediate samples taken

Extraction, Gold 79.2%

Chemical KCn consumption 0.6# per ton of ore.

Lime consumption 3.9# " " " "

Mechanical Loss 0.45# " " " "

Total Cyanide Consumption, 1.05# per ton of ore

ASSAYER

FORM 30778-3-14

DESERT POWER AND MILL COMPANY

ASSAY CERTIFICATE

"IDEAL MINE"

SAMPLE NO. 1 MILLERS, NEVADA, Nov. 5, 1914. 19

SAM. No.	SAMPLES TAKEN FROM	GOLD		SILVER		TOTAL VALUE PER TON	PERCENTAGE OF Lbs. Per Ton Sol.	
		OZS. PER TON	VALUE PER TON	OZS. PER TON	VALUE PER TON		KCn	Cao
	800 Grams ore ground to pass thirty mesh and leached 17--1/4 hours. Leaching ratio: Three of Solution to one of ore.							
	Heads	.24	4.80	.48	.24	5.04		
	Strength Solution, Heads						3.0#	
	After 17--1/4 hours leaching:							
	Tails	.05	1.00	---	---	1.00		
	Strength Solution, Tails						2.8#	

No intermediate samples taken

Extraction, Gold 79.2 %

Chemical KCn Consumption 0.6# per ton of ore

Lime Consumption 3.9# " " " "

KCn Mechanical Loss 0.42# " " " "

Total KCn Consumption 1.02# per ton of ore

ASSAYER

Nov. 7, 1914.

Ideal Mine - Sample No.1.

Leaching test on 4-mesh product, 800 g. ore, 2400 cc. solution.
Leaching time 24 hrs., no aeration.
Strength solution 3 lbs. KCN, 1.5 lbs. CaO.
Solution percolated in 24 hrs., 2112 c.c. - 2.8 KCN, .6 CaO.
Solution displaced by wash, 288 c.c. - 1.2 " .3 "
Chemical consumption KCN, .6 lbs. per ton ore.
Mechanical loss " .58 " " " "
Total " " 1.18 " " " "
Chemical consumption CaO, 2.7 " " " "
Mechanical loss " .11 " " " "
Total " " 2.81 " " " "

	Gold		Silver		Total	Extraction		
	oz.	value	oz.	value	value	Au%	Ag%	Value%
Head sample	.24	$4.80	.48	$0.24	$5.04			
Tailings	10	2.00	24	12	2.12	58.3	50	57.9

Screen analysis of tailings: (500 g. sample)

	%	Au	Ag	Value*
On 28 mesh	64.4	.12	.30	$1.64
" 80 "	16.7	10	26	36
Through 80 "	18.9	12	30	48
Whole sample		117	29	2.48

* Value of respective sizes in one ton of tailings.

Nov. 7, 1914.

Ideal Mine - Sample No.2.

Leaching test on 28-mesh product, 800 g. ore, 2400 c.c. solution.
Time 24 hours, no aeration.
Head solution 3 lbs. KCN, 1.5 lbs. lime.
Solution percolated in 24 hrs., 2120 c.c. - 2.7# KCN, .7# CaO.
Solution displaced by wash, 280 " - 2.0 " .6 "

Chemical consumption	KCN	per ton ore	.9 lbs.	
Mechanical loss	"	" " "	.25 "	
Total "	"	" " "	1.15	
Chemical consumption	CaO	" " "	2.4	
Mechanical loss	"	" " "	.04	
Total "	"	" " "	2.44	

	Gold		Silver		Total	Extraction		
	oz.	Value	oz.	Value	Value	Au%	Ag%	Values%
Head sample	.32	$6.40	.44	$0.22	$6.62			
Tailings	09	1.80	26	13	1.93	71.8	40.9	70.8

Screen analysis of tailings - 250 g. sample:

			Au	Ag	Value *
On	48	30.7%	.15	.31	$0.97
"	80	19	10	28	41
"	150	17.9	06	24	23
Through	150	32.4	06	30	44
Whole sample			095	29	2.05

* Value of respective sizes in one ton of tailings.

Nov. 7, 1914.

Ideal Mine - Sample No.2.

Leaching test on 4-mesh product, 800 g. ore, 2400 c.c. solution.
Time 24 hours, no aeration.
Head solution 3 lbs. KCN, 1.5 lbs. CaO per ton.
Solution percolated in 24 hrs., 2110 c.c. - 2.9# KCN, .4# CaO.
Solution displaced by wash, 290 " - 1.3 " .2 "
Chemical consumption KCN per ton ore .3 lbs.
Mechanical loss " " " " .58 "
Total " " " " .88 "
Consumption CaO " " " 3.37 "

	Gold		Silver		Total	Extraction		
	oz.	Value	oz.	Value	Value	Au	Ag	Values
Head sample	.32	$6.40	.44	$0.22	$6.62			
Tailings	10	2.00	26	13	2.13	68.7%	40.9%	67.8%

Nov. 7, 1914.

Ideal Mine - Sample No.1.

Leaching test on 28-mesh product, 800 g. ore, 2400 cc. solution.
Time 24 hrs., no aeration.
Head solution 3 lbs. KCN, 1.5 lbs. lime.
Solution percolated in 24 hrs., 2100 c,c, - 2.3# KCN, .6# CaO.
Solution displaced by wash, 300 " - 1.7 " .5 "
Chemical consumption KCN per ton ore 2.1 lbs.
Mechanical loss " " " " .23 "
Total " " " " " 2.33 "
Chemical consumption CaO " " " 2.7
Mechanical loss " " " " .04
Total " " " " " 2.74

	Gold		Silver		Total	Extraction		
	oz.	Value	oz.	Value	Value	Au%	Ag%	Values%
Head sample	.24	$4.80	.48	$0.24	$5.04			
Tailings	10	2.00	28	14	2.14	58.3%	41.6%	57.5%

Nov. 10, 1914.

Ideal No.2 - Leaching Test - 28-mesh product.

Ore 800 grams, solution 2400 c.c.
Total leaching time 47 hours. Charge drained for half an hour at end of 24 hours.

Head solution	2400 c.c.	3.1# KCN	1.5# CaO
Percolated in 24 hrs.	1125	2.9	.2
" " 47 "	2080	2.9	.5
Displaced by water wash	320	1.5	.5

Chemical consumption	KCN	per	ton	of	ore	0.6#
Mechanical loss	"	"	"	"	"	.56
Total "	"	"	"	"	"	1.16
Consumption	CaO	"	"	"	"	3.0

	Au	Ag	Au Value	Ag Value	Total Value	Extraction Au	Extraction Total
Head assay	.32	.44	$6.40	$0.22	$6.62		
Tailings (47 hrs.)	.08	.31	1.60	.16	1.76	75%	73.4%

Nov. 10, 1914.

Ideal No.2 - Leaching Test - 4-mesh product.

Ore 800 grams, solution 2400 grams.
Total leaching time, 47 hours. Charge drained for half an hour at the end of 24 hrs.

Head solution	2400 c.c.	3.1# KCN	1.5# CaO
Percolated in 24 hrs.	1170	3.0	.3
" " 47 "	2110	2.9	.6
Displaced by water wash	290	1.8	.7

Chemical loss KCN per ton of ore	0.6 lbs.
Mechanical " " " " " "	.4 "
Total " " " " " "	1.0 "
Consumption CaO " " " "	2.7 "

	Au	Ag	Au Value	Ag Value	Total Value	Extraction Au	Extraction Total
Head assay	.32	.44	$6.40	$0.22	$6.62		
Tailings (47 hrs.)	.09	.31	1.80	.16	1.96	71.8%	70.4%

Nov. 10, 1914.

Ideal No.1 - Leaching Test - 28-mesh product.

Ore 28-mesh, 800 grams.
Solution 2400 c.c.(3:1 of ore).

At the end of 24 hrs. the charge was drained for half an hour.
Total leaching time, 47 hours.

Head solution	2400 c.c.	3.1# KCN	1.5# CaO.
Percolated in 24 hrs.	1130 "	2.5 "	.1 "
" " 47 "	2045 "	2.6 "	.3 "
Wash solution(water wash)	355 "	2.1 "	1.1 "

Chemical loss KCN per ton of ore,	1.5 lbs.
Mechanical " " " " " "	.22 "
Total " " " " " "	1.72 "
Consumption CaO " " " "	3.3 "

	Au	Ag	Au Value	Ag Value	Total Value	Extraction Au	Extraction Total
Head assay	.24	.48	$4.80	$0.24	$5.04		
Tailings(47 hrs.)	.08	.30	1.60	.15	1.75	66.6%	65.2%

Nov. 10, 1914.

Ideal No.1 - Leaching Test.

Ore 4-mesh, 800 grams.
Solution 2400 c.c. (ratio 3:1 of ore), 3.1# KCN, 1.5# CaO.
At the end of 24 hrs. the charge was allowed to drain for half an hour, and then again covered.

Solution percolated in 24 hrs.,	1150	c.c.,	3.0#	KCN,	0.1# CaO.
" " " 47 "	2085	"	2.9	"	.4 "
Wash solution	315	"	1.9	"	.9 "

Chemical loss KCN per ton of ore,	0.6	lbs.	
Mechanical " " " " " "	.4	"	
Total " " " " " "	1.0	"	
Loss of CaO " " " "	3.1	"	

	Au	Ag	Au Value	Ag Value	Total Value	Extraction Au	Extraction Total
Head assay	.24	.48	$4.80	$0.24	$5.04		
Tailings(47 hrs.)	.10	.30	2.00	.15	2.15	58.3%	57.3%

Nov. 10, 1914.

Ideal No.1 - Bottle Agitation Tests.

Ore 100 grams, solution 300 c.c. Time 5 hours.

		28-mesh ore:				48-mesh ore:			
		#1	#2	#3	#4	#1	#2	#3	#4
Head solution,	KCN	1.5	3.0	4.5	5.8	1.5	3.0	4.5	6.0
Tail "	"	1.4	2.9	4.4	5.7	1.4	2.9	4.3	5.8
Head "	CaO	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Tail "	"	.7	.8	.8	.8	.7	.6	.7	.7
Consumption	KCN	.3	.3	.3	.3	.3	.3	.6	.6
"	CaO	2.4	2.1	2.1	2.1	2.4	2.7	2.4	2.4
Assay heads,	Au-oz.	.24	.24	.24	.24	.24	.24	.24	.24
" "	Ag "	.48	.48	.48	.48	.48	.48	.48	.48
Value "	Au	$4.80	$4.80	$4.80	$4.80	4.80	4.80	4.80	4.80
" "	Ag	.24	.24	.24	.24	.24	.24	.24	.24
" "	Total	5.04	5.04	5.04	5.04	5.04	5.04	5.04	5.04
[illegible]	[illegible]								
" [illegible]	[illegible]								
Assay tails,	Au-oz.	.06	.05	.05	.05	.07	.08	.08	.08
" "	Ag "	.28	.31	.31	.29	.33	.33	.31	.31
Value "	Au	$1.20	$1.00	$1.00	$1.00	1.40	1.60	1.60	1.60
" "	Ag	.14	.16	.16	.15	.17	.17	.16	.16
" "	Total	1.34	1.16	1.16	1.15	1.57	1.77	1.76	1.76
Extraction,	Au	75.0%	79.1%	79.1%	79.1%	70.8%	66.6%	66.6%	66.6%
"	Ag								
"	Values	73.4	77	77	77.1	68.8	64.8	65.0	65.0

190
item 9

Millers, Nevada.

December 17, 1914.

J. E. Spurr, Vice Pres.,
Tonopah Mining Company,
572 Bullitt Building,
Philadelphia, Pa.

Dear Sir:

I submit herewith data of tests made on samples of ore from Ideal Mine. These results indicate that leaching of the ore coarser than 65 mesh does not give a very satisfactory recovery. By screening the ore and leaching the minus 20 mesh material an extraction of about 80 % can be made showing that the values are tied up in the quartz to a greater extent, in the material over 20 mesh, even after being ground to pass 28 mesh.

All slime product gives a very good extraction and I am of the opinion that this ore could be slimed at a cost little above that for producing a 65 mesh product.

If fine sand was produced there would be considerable slime made during crushing which would interfere with leaching unless a two product treatment was carried on, (sand and slime). All slime, would avoid this expense, which would tend to and almost entirely offset cost of all slime grinding. If a quartz ledge could be opened nearby to produce tube mill pebbles, the grinding and whole treatment would be simple.

The cost of treatment on all slime basis, after normal operation was established, would not exceed $1.30 per ton. Material can be fed to tube mill at four mesh and will slime very readily. If after further development the mine seems to justify consideration of treating ore, we will go into this matter in more detail as well as check up tests on samples of ore opened as result of future development.

Respectfully submitted,

F. F. Heydenfeldt

FFH:H

Act'g. Superintendent.

LEACHING TESTS

GOLD ORE

I D E A L M I N E

MINUS 28 MESH PRODUCT TESTS

SAMPLE NO. 1 TEST NO. 1 NOV. 5th, 1914.

800 Grams of ore ground to pass 30 mesh.

Leadhed, 17-1/4 hours.

Leaching ratio: Three of solution to one of ore.

Heads .24 Ozs Gold .48 ozs. Silver or $5.04 value per ton

Tails .05 " " --- " " or 1.00 " " "

% Extraction: 79.2 Gold

Consumption: 1.02 lbs. cyanide and 3.9 lbs. lime per ton of ore.

SAMPLE NO. 1 TEST NO. 2 NOV. 7th, 1914.

800 Grams of ore ground to pass 28 mesh.

Leached 24 hours.

Leaching ratio: Three of solution to one of ore.

Heads .24 Ozs. Gold .48 Ozs. Silver or $ 5.04 value per ton

Tails .10 " " .28 " " or 2.14 value per ton

Extracted .14 " " .20 " " or $ 2.90 value per ton.

Extraction: 58.3 % Gold: 41.6 % Silver: 57.5 % Value.

Consumption: 2 lbs. Cyanide; 2.74 lbs. Lime per ton of ore

Sample No. 2 TEST NO. 3 NOV. 7th, 1914.

800 Grams of ore ground to pass 28 mesh.

Leached 24 hours.

Leaching ratio: Three of solution to one of ore.

Heads .32 Ozs. Gold .44 Ozs. Silver or $6.62 value per ton.

Tails .09 " " .26 " " or 1.93 " " "

Extracted .23 " " .18 " " or $4.69 " " "

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
GOLD	SILVER	VALUE	KCn	CaO
71.8	40.9	70.8	1.15	2.44

SAMPLE NO. 1 TEST NO. 4 NOV. 10, 1914.

800 Grams of ore ground to pass 28 mesh.

Leached 47 hours.

Solution drained at end of 24 hours to aereate, then leached 23 hours longer.

Leaching ratio: Three of solution to one of ore.

Heads .24 Ozs. Gold .48 Ozs. Silver or $5.04 value per ton.

Tails .08 " " .30 " " or 1.75 " " "

Extracted .16 " " .18 " " or $3.29 " " "

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
GOLD	SILVER	VALUE	KCn	CaO
66.6	37.5	65.2	1.72	3.3

No samples taken at point of 24 hours leaching.

SAMPLE NO. 2 TEST NO. 5 NOV. 10th, 1914.

800 Grams of ore ground to pass 28 mesh.

Leached 47 hours.

Leaching ratio; Three of solution to one of ore

Solution drained off at end of 24 hours to aerate, then leached 23 hours longer.

Heads .32 Ozs. Gold .44 Ozs. Silver or $6.62 value per ton

Tails .08 " " .31 " " or 1.75 " " "

Extracted .24 " " .13 " " or $4.87 " " "

% EXTRACTION		CONSUMPTION: POUNDS PER TON OF ORE	
GOLD	VALUE	KCn	CaO
75	73.4	1.16	3.0

SAMPLE NO. 1 TEST NO. 6 NOV. 15th, 1914.
LOT NO. 1

1000 Grams of ore ground to pass 28 mesh.

Leached 17 hours.

.7 Lb. Lead acetate per ton of ore added.

Solution allowed to leach or percolate as fast as it would

2000 C.C. Solution used and returned to top of charge at periods to keep sand covered.

Leaching ratio; 24 solution to one of ore at start.
8 solution to one of ore at finish.

Heads .20 Ozs. Gold or $4.00 Value per ton.

Tails .06 " " or 1.20 " " "

Extracted .14 " " or $2.80 " " "

70 % Extraction. Consumption not recorded.

Silver not noted.

SAMPLE NO. 2 TEST NO. 7 NOV. 15th, 1914.
LOT NO. 2

1000 Grams of ore ground to pass 28 mesh.

Same as test No. 6 except as follows:

Leaching ratio 14 solution to one of ore at start.
6 solution to one of ore at finish.

*Packing of sand after being saturated with solution causes change in leaching rate on two tests, 6 and 7.

Heads .28 Ozs. Gold or $5.60 Value per ton.

Tails .06 " " or 1.20 " " "

Extracted .22 " " or $4.40 " " "

78.5 % Extraction.

Consumption of chemicals or silver content not noted.

SAMPLE NO. 2 TEST NO. 8 DEC. 2nd, 1914.

LARGE TEST

Ore ground to pass 8 mesh estimated.

Treated 17 hours.

*Solution introduced from bottom or filter (upward fill) until sand was well covered, then allowed to soak or macerate 17 hours, then solution was drained off and sand washed. This was method used at Ideal mine during operations there.

Heads .25 Ozs. Gold .43 Ozs. Silver or $5.21 value per ton

Tails .10 " " .30 " " or 2.15 " " "

Extracted .15 " " .13 " " or $3.06 " " "

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
GOLD	SILVER	VALUE	KCn	CaO
60	30	58.7	.75	3.0

TEST NO. 9 DEC. 4th, 1914.

500 Grams of ore ground to pass 65 mesh.

Leached 17 hours.

Ratio, 1.4 solution to one of ore.

Heads .28 Ozs. Gold .34 Ozs. Silver or $5.77 value per ton.

Tails .04 " " -- " " or .80 " " "
(Washed)
Tails .06 " " -- " " or $1.20 " " "
(Unwashed)

EXTRACTION) Unwashed 78.5 %
(Washed 85.7 %

CONSUMPTION) .66 Lbs. Cyanide per ton of ore
(.9 Lbs. Lime per ton of ore.

4 MESH PRODUCT

CYANIDE TESTS ON ORE

FROM

I D E A L M I N E

(Sample No. 1 Marked)

10/31/14

Reject from samples at Ideal Mine.

For mill test. Tonopah Mining Company,

By, W. H. Serdevan.

(Sample No. 2 Marked)

2/3 Ore from stope

1/3 Screened ore

For cyanide test. Ideal Mine

Tonopah Mining Co.,

by, W. H. Serdevan.

LEACHING TESTS

GOLD ORE

I D E A L M I N E

4 MESH PRODUCT TESTS

SAMPLE NO. 1 TEST NO. 1 Nov. 5th, 1914

800 Grams of ore ground to pass 4 mesh and leached with three pound cyanide solution.

Time leaching, 17-1/4 hours. Leaching ratio, three of solution to one of ore.

	OZS. PER TON GOLD	SILVER	VALUE
Heads	.24	.48	$5.04
Tails	.05	--	1.00
Extracted	.19		$4.04
PER CENT EXTRACTION	79.2		

CHEMICAL CONSUMPTION) Cyanide, 1.05 Pounds per ton of ore

Lime, 3.9 Pounds per ton of ore

SAMPLE NO. 2 TEST NO. 2 NOV. 7th, 1914

800 Grams ore: 2400 C.C. solution.

Time Leaching, 24 hours.

Solution: Three pounds cyanide and 1.5 pounds CaO per ton solution.

Solution percolated in 24 hours, 2110 C.C.

Solution displaced by wash 290 C.C.

	OZS. PER TON GOLD	SILVER	VALUE
Heads	.32	.44	$6.62
Tails	.10	.26	2.13
Extracted	.22	.18	$4.49

% EXTRACTION Au.	Ag.	VALUE	CONSUMPTION: POUNDS PER TON OF ORE KCn	CaO
68.7	40.9	67.8	.88	3.37

SAMPLE NO. 1 TEST NO. 3 NOV. 7th, 1914.

800 Grams ore: 2400 C.C. solution.

Time leaching, 24 hours.

Solution three pounds cyanide and 1.5 pounds CaO per ton solution.

Solution percolated in 24 hours 2112 C.C.

Solution displaced by wahs 288 C.C.

2400 C.C.

	OZS. PER TON GOLD	SILVER	VALUE
Heads	.24	.48	$5.04
T ails	.10	.24	2.12
EXTRACTED	.14	.24	$2.92

% EXTRACTION Au.	Ag.	VALUE	CONSUMPTION: POUNDS PER TON OF ORE KCn	CaO
58.3	50	57.9	1.18	2.81

SCREEN ANALYSIS ON ABOVE TAILS

		Au.	Ag.	Value	
On 28 mesh	64.4%	.12	.30	$2.55	Per ton screened prod.
On 80 Mesh	16.7	.10	.26	2.13	" " " "
Through 80 Mesh	18.9	.12	.30	2.55	" " " "

Whole sample of above by calculation does not check tails assay but is close. It shows all products to be of about the same value regardless of size.

SAMPLE NO. 1 TEST NO. 4 NOV. 10th, 1914.

800 Grams Ore: 2400 C.C. Solution

At end of 24 hours washing, the charge was drained for half an hours to aereate and then covered with solution again and leached for 23 hours longer.

Solution percolated in 24 hours	1150 C.C.
Solution percolated in 47 hours	2085 C.C.
Wash solution	315 C.C.
Total	2400 C.C.

	OZS. PER TON		
	GOLD	SILVER	VALUE
Heads	.24	.48	$5.04
Tails	.10	.30	2.15
EXTRACTED	.14	.18	$2.89

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
Au.	Ag.	VALUE	KCn	CaO
58.3	38	57.3	1.0	3.1

SAMPLE NO. 2 TEST NO. 5 NOV. 10th, 1914

800 Grams Ore: 2400 C.C. Solution

Treated same as Test No. 4

	OZS. PER TON		
	GOLD	SILVER	VALUE
Heads	.32	.44	$6.62
Tails, 47 hours	.09	.31	1.96
Extracted	.23	.13	$4.66

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
Au.	Ag.	VALUE	KCn	CaO
71.8	30	70.4	1.0	2.7

SAMPLE NO. 1 TEST NO. 6 NOV. 10th, 1914

48 hours leaching.

Solution, 3.1 pounds cyanide per ton

Heads .24 ozs. Gold .48 Ozs. Silver or $5.04 value per ton

Tails .10 " " .30 " " or 2.15 " " "

Extracted .14 " " .18 " " or $2.89 " " "

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
Au.	Ag.	VALUE	KCN	CaO
58.3	.38	57.3	1.0	3.3

SAMPLE NO. 2 TEST NO. 7 NOV. 10th, 1914.

48 hours leaching, other conditions same as above.

Heads .32 Ozs. Gold .44 Ozs. Silver or $6.62 value per ton

Tails .09 " " .31 " " or 1.95 " " "

Extracted .23 " " .13 " " or $4.67 " " "

% EXTRACTION			CONSUMPTION: POUNDS PER TON ORE	
Au.	Ag.	VALUE	KCn	CaO
71.9	30	70.5	.6	2.7

SAMPLE NO. 2 TEST NO. 8 NOV. 15th, 1914

LOT NO. 2 LARGER SCALE TEST

4000 Grams ore; 8000 C.C. Solution

.7 Pound lead acetate per ton ore added.

17 hours leaching.

Heads .28 Ozs. Gold .34 Ozs. Silver or $5.74 value per ton

Tails .10 " " .25 " " or 2.13 " " "

EXTRACTED .18 " " .09 " " or $3.61 " " "

% EXTRACTION			CONSUMPTION: POUNDS PER TON OF ORE	
Au.	Ag.	VALUE	KCn	CaO
64.2	26	63	1.0	1.2

SAMPLE NO. 1 TEST NO. 9 NOV. 15th, 1914.

LOT NO. 2 LARGER SCALE TEST

4000 Grams Ore: 8000 Grams Solution.

.7 Pound lead acetate per ton of ore added.

Heads .20 Ozs. Gold .32 Ozs. Silver or $4.16 value per ton

Tails .09 " " --- or $1.80 " " "

Extraction of gold: 55 %

Consumption: one pound cyanide and 1.2 pound lime per ton of ore

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NOTE:

Considering gold values in tails on tests of both No. 1 and No. 2 samples it will be noted that they are the same. Higher percent of extraction made on No. 2 sample seems to be due to higher content of heads on this sample.1 Deduction is that there is a certain amount tied up in ore that cyanide will not get on this coarse material, regardless of head value and it will stay fixed in a broad sense.

AGITATION TESTS

GOLD ORE

I D E A L M I N E

With the idea that channeling occured, leaching material of this degree of coarseness which would give spotty extraction, owing to incomplete contact of solution and ore, it was decided to agitate material of same sizes. This insured intimate contact and gave the following results:

SERIES NO. 1

4 MESH ORE

100 grams of ore with 300 C.C. solution agitated in bottle five hours. Heads assayed .24 ozs. Gold .48 ozs. Silver or $5.04 value per ton.

TEST NO.	1	2	3	4
Lbs. KCn per ton sol.	1.5	3.0	4.5	6.0
Lbs. CaO " " "	1.5	1.5	1.5	1.5
Extraction, Gold	70.8%	66.6%	66.6%	66.6%
Extraction, Silver	---	---	---	---
Extraction, Value	68.8%	64.8%	65%	65%
Consumption, KCn	.3#	.3#	.6#	.6#
" " " CaO	2.7#	2.4#	2.7#	2.7#

SERIES NO. 2

28MESH ORE

100 Grams of ore with 300 C.C. Solution agitated in bottles for five hours.

Heads assayed, .24 Ozs. Gold, .48 Ozs Silver or $5.04 velue perton.

TEST NO.	5	6	7	8
LBS. KCn per ton solution	1.5	3.0	4.5	5.8
Lbs. CaO per ton solution	1.5	1.5	1.5	1.5
Extraction, Gold	75%	79.1%	79.1%	79.1%
" Values	73.4%	77 %	77	77
Consumption KCn	.3#	.3#	.3#	.3#
Consumption CaO	2.4	2.1	2.1	2.1

SAMPLE NO. 1 TEST NO. 9 NOV. 13th, 1914

Ore ground to pass 4 mesh.

100 Grams ore: 300 C.C. solution 3lbs. cyanide strength, .7 pound lime. Agitated in bottle 16-1/2 hours.

Heads .24 Ozs. Gold .48 Ozs. Silver or $5.04 value per ton

Tails .06 " " .23 " " or 1.32 " " "

Extracted .18 " " .25 " " or $3.72 " " "

Extraction: 75% Gold ; 73.8 Value

Consumption: .6 Lb. C yanide; 1.5 lbs. lime per ton of ore.

SAMPLE NO. 1 TEST NO. 10

Ore ground to pass 28 mesh.

Other conditions same as above.

Heads .24 Ozs. Gold .48 Ozs. Silver or $5.04 value per ton

Tails .06 " " .20 " " or 1.30 " " "

Extracted .18 " " .28 " " or $3.74 " " "

Extraction: 75% Gold; 74.2 % Value.

Consumption: .6 lb. Cyanide; 1.5lb. Lime per ton of ore.

SAMPLE NO. 2 TEST NO. 11 NOV. 13th, 1914.

Conditions same as above. Ore 4 mesh.

Heads .32 Ozs. Gold .44 Ozs. Silver or $6.62 value per ton

Tails .10 " " .25 " " or 2.13 " " "

Extracted .22 " " .19 " " or $4.49 " " "

Extraction: 68.7% Gold; 67.8% Value.

Consumption: .6 Lb. Cyanide; 1.5 Lb. Lime

SAMPLE NO. 2 TEST NO. 12 NOV. 13th, 1914.

Conditions same as above.

Ore 28 mesh.

Extraction: 81.2% Gold; 80.3% Value

Consumption: .6 Lb. Cyanide 1.5 Lb. Lime per ton of ore

Sample No. 1 TEST NO. 13 NOV. 16th, 1914.
LOT NO. 1

Conditions same as above.

Ore 28 mesh.

Heads .20 Ozs. Gold or $4.00 Value per ton

Tails .05 " " or 1.00 " " "

Extracted .15 " " or $3.00 " " "

Extraction: 75 %

Consumption: .3 lb. Cyanide; 1.5 Lb. Lime per ton of ore

SAMPLE NO. 1 TEST NO. 14 NOV. 16th, 1914.
LOT NO. 1

Conditions same as above.

Ore 150 mesh.

Heads .20 Ozs. Gold or $4.00 value per ton

Tails .02 " " or .40 " " "

Extracted .18 " " or $3.60 " " "

Extraction: 90 %

Consumption: .3 Lb. Cyanide; 1.5 Lb. Lime per ton.

SAMPLE NO. 2 TEST NO. 15 NOV. 16th, 1914.
LOT NO. 1

Conditions same as above.

Ore 28 mesh.

Heads .26 Ozs. Gold or $5.20 Value per ton

Tails .06 " " or 1.20 " " "

Extracted .20 " " or $4.00 " " "

Extraction: 76.9%

Consumption: .3 Lbi Cyanide; 1.5 Lb. Lime per ton.

SAMPLE NO. 2. TEST NO. 16 NOV. 16th, 1914.

SAMPLE NO. 2 TEST NO. 16 NOV. 16th, 1914.
LOT NO. 1

Conditions same as above.

Ore 150 mesh.

Heads .26 Ozs. Gold or $5.20 value per ton

Tails .02 " " or .40 " " "

Extracted .24 " " or $4.80 " " "

Extraction: 92.3 %

Consumption: .3 Lb. Cyanide; 1.5 Lb. Lime per ton.

TEST NO. 17 NOV. 25th, 1914.

Agitation test on screened products.

A sample of the 4 mesh ore was screened on a 20 mesh screen. Oversize was crushed through a 28 mesh screen. The two products were kept separate and given the same treatment. Conditions of treatment, same as above.

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Oversize: crushed through 28 mesh.

Heads .18 Ozs. Gold or $3.60 value per ton

Tails .05 " " or 1.00 " " "

Extraction: $2.60 per ton or 72.2 %.

Consumption: .6 Lb. Cyanide; 1.5 Lb., Lime per ton

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Undersize: not crushed.

Heads .20 Ozs. Gold or $4.00 value per ton.

Tails .04 " " or .80 " " "

Extraction: $3.20 per ton or 80 %

Consumption: .6 Lb. Cyanide; 1.5 Lb. Lime per ton

SAMPLE NO. 2 TEST NO. 18 NOV. 25th, 1914.
LOT NO. 1

Conditions same as above.

Ore 28 mesh.

Heads .26 Ozs. Gold or $5.20 value per ton.

Tails .05 " " or 1.00 " " "

Extracted .21 " " or $4.20 " " "

Extraction: $4.20 value per ton or 80.7 %.

Consumption: .6 Lb. Cyanide; 1.5 Lb. Lime per ton.

SAMPLE NO. 2 TEST NO. 19 NOV. 25th, 1914.

LOT NO. 1

Conditions same as above. 17 hours agitation.

Ore 150 mesh.

Heads .26 ozs. Gold or $5.20 Value per ton

Tails .02 " " or .40 " " "

Extracted .24 " " or $4.80 " " "

Extraction: 92.3 %

Consumption: .6 Lb. Cyanide; 1.5 Lb. Lime per ton

SAMPLE NO. 2 TEST NO. 20

Treatment same as No. 19 except 4-1/2 hours agitation only.

Extraction: 92.3 %

TEST NO. 21

Treatment same as No. 18 except 4-1/2 hours agitation only.

Extraction: 76.9 %

TEST NO. 22

Treatment same as No. 18 except 4-1/2 hours agitation.

Ore 28 mesh.

Heads .28 Ozs. Gold or $5.60 Value per ton.

Tails .05 " " or 1.00 " " "

Extracted .23 " " or $4.60 " " "

Extraction: 82.1 %

Consumption: .3 Obl Cyanide; 1.2 Lb. Lime per ton.

TEST NO. 23

Treatment same as above.

Ore 65 mesh.

Extraction: 92.8 %

Consumption: .3 Lb. Cyanide; 1.2 Lb. Lime per ton.

S U M M A R Y

MINUS 28 MESH LEACHING TESTS

SAMPLE NO. 1

Heads .24 ozs. Gold or $4.80 Value per ton.

16 to 24 Hours Treatment			47 Hours Treatment		
TEST NO.	Ozs. GOLD TAILS	% GOLD EXTRACTED	TEST NO.	OZS. GOLD TAILS	% GOLD EXTRACTED
1	.05	79.2?	4	.08	66.6
2	.10	58.3			

SAMPLE NO. 2

Heads .32 Ozs. Gold or $6.40 Value per ton.

16 to 24 Hours Treatment			47 Hours Treatment		
TEST NO.	OZS. GOLD TAILS	% GOLD EXTR'TD.	TEST NO.	OZS. GOLD TAILS	% GOLD EXTR'TD.
3	.09	71.8	5	.08	75

SAMPLE NO. 1 TEST NO.6 LOT NO. 1

17 Hours treatment; Tails .06 Ozs. Gold; Extraction, 70 % Gold.
Heads .20 Ozs. Gold or $4.00 value per ton.

SAMPLE NO. 2 TEST NO. 7 LOT NO. 2

Heads .28 Ozs Gold or $5.60 Value per ton.

17 Hours treatment; Tails .06 Ozs. Gold; Extraction 78.5% Gold.

SAMPLE NO. 2 TEST NO. 8 8 MESH.

Heads .25 Ozs. Gold or $5.00 Value per ton.

Tails .10 " " or $2.00 " " "

Extraction 60% Gold.

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65 MESH. TEST NO. 9

Heads .28 Ozs. Gold or $5.60 Value per ton.

Tails .04 " " or .80 " " "

Extraction 85.7 % Gold.

Note: Value of tails is about same in most cases except Teste 8 and 9 where size of material is different.

S U M M A R Y

OF

4 MESH LEACHING TESTS

Sample No. 1

Heads .24 Ozs. Gold or $4.80 Value per ton

16 to 24 hours treatment			47 to 48 Hours Treatment		
TEST NO.	OZS. GOLD TAILS	% GOLD EXTRACTED	TEST NO.	OZS. GOLD TAILS	% GOLD EXTRACTED
1	.05	79.2?	4	.10	58.3
3	.10	58.3	6	.10	58.3

Sample No. 2

Heads .32 Ozs. Gold or $6.40 Value per ton.

16 to 24 Hours Treatment			47 to 48 Hours Treatment		
TEST NO.	OZS. GOLD TAILS	% GOLD EXTRACTED	TEST NO.	OZS. GOLD TAILS	% GOLD EXTRAC-TED
2	.10	6.87	5	.09	71.8
			7	.09	71.9

Lot No. 2; Sample No. 1

Heads .20 Ozs. Gold or $4.00 Value per ton.

Test No. 9 55 %

Tails, .09 Ozs. Gold.

Lot No. 2; Sample No. 2

Heads .28 Ozs. Gold or $ 5.60 Value per ton.

Test No. 8 64.2 %

Tails, .10 Ozs. Gold.

Note: contents of tails same regardless of heads.

REPORT OF TESTS MADE BY THE
DESERT POWER & MILL COMPANY
ON ORE FROM THE

IDEAL MINE

NEVADA