No. 157 Howard Street
Spokane 4, Washington

July 10, 1951

yellow jacket

Memorandum

To: A. S. Weissenborn, Executive Officer
Field Team, Region II
Defense Minerals Administration

From: Jack Vhay, Geologist
U. S. Geological Survey

Subject: Steen Property, Lemhi County, Idaho
DMA Docket 869 and 10801-Copper

RECOMMENDATIONS

It is recommended that the applicant be granted assistance for bulldozing to the amount of $2,300 to determine if the larger exploration program is feasible.

FIELD EXAMINATION

The Continental Group of claims lies along a wide northwest-trending brecciated zone cemented by calcite. The Columbus mine further up the hill probably lies along the same zone. At many places along this zone, perhaps at random, but probably at intersections with N.S. fractures, the calcite cement in the breccia has been replaced by quartz which carries variable amounts of chalcopyrite, tetrahedrite, or galena. Seven workings were observed where these conditions were noted. At only one was an ore body of appreciable size developed. The quartz and occasionally copper was observed only at the surface above the workings where these minerals were seen underground. Mr. Steen apparently believes that the copper mineralization is continuous between the workings. There is some doubt of the continuity of the mineralization as there are long stretches where only calcite shows up in the float. Where mineralization has taken place, the mineralized rock is very spotty in its distribution. A small bulldozing program may be advisable to check the continuity of the mineralization. If this program shows good results, a larger project may be worth consideration.

707 Peyton Building
Spokane 8, Washington

July 21, 1943

Mr. H. S. Steen
Forney,
Idaho

Dear Heber:

Your letter of July 6 arrived here on the 9th, but I have been in Montana, hence the delay in answering.

Needless to say I was happy to hear from you and appreciate the information you enclosed on your property near Yellowjacket.

It is difficult to evaluate a property from the standpoint of its war minerals when you haven't been over the ground, but largely on the basis of your assays, I would say that the property certainly appears to be interesting as to the gold and silver content but that the indicated copper content is low for a deposit of the Yellowjacket type, particularly when the geographic location is considered. I am, however, sending a copy of your letter to Mr. Ralph Cannon, who directs our copper investigations.

About the possibility of road or diamond drilling contracts, and specifically at Mackay, Idaho, referred to in your letter. Mr. J. R. Weber is manager of the Mackay Exploration Company, which is the principal mine near Mackay, and negotiations for contract work would have to be carried on with him. His address is Mackay, Idaho. Incidentally, Mr. Weber is a University of California graduate.

The Bureau of Mines is, as you know, probably contracting for more diamond drilling than any other organization in the country. If you are interested in this sort of contracting, I would suggest that you write to Mr. S. H. Lorain, U. S. Bureau of Mines, Moscow, Idaho. It is quite likely that you already know Mr. Lorain.

The Bureau of Public Roads and the Forest Service handle the actual road-building work, as you know. The Forest Service builds much of its roads but the Bureau of Public roads contracts much of its work. The jobs are advertised and the contracts are assigned on a contract basis. You probably know Allen Merritt. He, no doubt, could give you the information you would need from an inside standpoint which generally gets one to the point in a much straighter line.

I appreciate your invitation to visit your property. There is nothing I like better than a chance to get back in the Idaho hills, particularly if there are a few mines and prospects to look at. Now, and until the war is over, however, my time isn't my own, but I will certainly hopefully look forward to a trip into Yellowjacket.

Please convey my kindest wishes to Mrs. Steen and to Ed and his family if they are with you.

With kindest regards,

Sincerely,

P. J. SHENON
Regional Geologist

pjs/sm
cc Mr. Cannon

No. 197 Howard Street
Spokane 4, Washington

October 15, 1951

Memorandum

yellow jacket

To: DMA Field Team, Region II, U. S. Geological Survey

From: J. S. Vhay, Geologist, U. S. Geological Survey

Subject: Steen Property, Lemhi County, Idaho, DMA Docket 869 and 10830, Copper.

On September 20, 1951 a visit was made to the Steen property with Mr. Wayne Roberts to see the results of a bulldozing exploration program which had been reportedly done there.

An excellent bulldozing program had been done. (This work was all done previous to the signing of a DMA Exploration Contract). The trenching started just above the No. 3 Tunnel (see Fig. 1 "Sketch Map of Steen Claims," in the memorandum on this property by the DMA Field Team, Region II) and zigzagged up the hill across the "assumed fracture zone," past the Nos. 2 and 1 tunnels and down across the gulch running through the Liberty claim, where it joined the old road.

No mapping or sampling was done, as the trenching proves that there are no large ore bodies on this property. The cuts show that the ore body exposed in the No. 3 Tunnel and extending probably up to the No. 2 Tunnel, is somewhat smaller than previously thought; the next cut above the No. 2 Tunnel shows only about a foot of quartz with a little copper stain in it. The rest of the cuts on the southeast side of the Silver Bullion-Lincoln Fraction ridge show nothing of interest. The top cut on the northwest side of this ridge shows a little gossan and copper stain, but the rest of the cuts show no mineralized rock indicating any kind of an ore body; these include two, one above and the other just below two small adits which had a little copper ore on their dumps.

In summary then, it is felt that an excellent job of prospecting with a bulldozer has been done here, and that it has proved conclusively that there are no ore bodies of appreciable size on this property. Therefore it is recommended that the Federal Government spend no money on this property under an Exploration Contract nor any other type of assistance.

cc: U.S.B.M., Spokane
U.S.B.M., Albany

JSV/bh

Pounds Gross	% Water	Pounds Dry	% Copper	Ounces Silver	Ounces GOLD	Treat Charge	Price a ton	Date	Sulphur %	Silica %	Iron %	Alumina%
2461	11.7	2173	9.22	1.9	.36	5.50	9-'35 after		cordoroy	40.8	17.1	7.7
1790	2.34	1748	6.75	2.1	2.235	$5.25	$80.43	8-'37	33.7%	20.6%	31.1	6.0
4876	8.17	4478	8.93	1.6	.874	$5.25	42.02	7-'37	concs.	12.9	35.2	2.3
10120	6.13	9500	8.28	1.35	.67	5.25	26.80	8-'36	"	30.8	23.3	7.1
4367	6.1	4101	10.72	1.4	.92	5.50	37.15	7-'36	"	18.1	30.9	4.5
Alum.2.5		13186	6.66	3.61	.75	lime 1.9		8-'36	crude	17.2	48.4	17.Tacoma
" 8.7		5280	5.08	1.0	.41	1935		9-'36	"	58.	11.7	Butte
Cleaner tails		2173	9.22	1.9	.36	5.50	15.66	9-'35	concs.	40.8	17.1	7.7
" "		2658	7.76	1.6	.48	5.50	18.29	9-'35	"	41.3	18.2	6.8
Alum.7.6		3 0	4.72	1.1	.45			'35	crude	57.3	11.4	Sulphur
7571	.77%	7513	3.75	1.425	1.078	3.70	34.65	6-'34	crude	37.4	21.	22.7
CaO(2.2)Zne.2-		2317	6.88	1.425	1.25	3.70	44.2	10-35	Tconcs.	32.8	25.6	24.2
" (2.2) "Nil		1802	4.4	1.175	.4	3.70	14.65	10-36	Cl.tails	49.6	18.3	12.9
" (.4) " "		10310	.76	14.85	.055		15.76	10-29	crude	67.3	3.2	.7
This above shipment of crude lead-silver ore had " " "										17.05% Lead		
" (1.0)		22040	8.85	4.40	.81	lime 1.0		8-33	"	46.	19.4	
" (2.1)NoZc		21809	9.3	2.36	1.49			10-29		30.	26.	25.8
Coarse grind.		159	2.55	4.80	3.32		98.80	10-35	Tconcs.	(O-Z ore-apex)		

The following concentrates were purchased or sampled by Bunker Hill Smelter

Ant.Ars.Zinc	IBS.	Bismuth	Silver	Gold	Cu.	Treat.	Price	Date	Type	Silica	Iron	Sul.
.4% .15%.3%	279	.004%	.50	2.53		9.42	71.08	7-38	concs.	50.0	26.6	1.8
.15	1064	.01	1.8	6.82	1.5	9.5	215.70	8-38	concs.			4.0
	210	.028	.55	4.86	.5	12.	147.45	10-38	concs.	49.8	20.9	10.6
#4 adit ore milled			131.9	732.16(cleaned cordoroy concentrates) 6-27-38								
#4 waste dump fines			4.6	15.06(table concs. from #4 dump fines)7-1-38								
0 .15 tr.	1200	.01	1.8	6.82	1.5			8-'38		47.8	26.1	4.0
.1 tr. tr.	815	(Pb.5)1	5.35	8.63	3.9	16.	270.15	5-38	concs.	36.8	29.2	14.3

On this last line are #4 adit concs.by tabling-cordoroy etc.rougher concs.run in1937.

	Pounds	Copper	Silver	Gold	Treat	Price	Date	Sulphur	Silica	Iron	Alumina
To Anaconda	4434	7.33	3.8	2.65	5.25	95.67	8-37	16.	33.2	26.8	2.5
" "	3971	5.97	8.9	1.945	5.25	74.90	7-'37	An.	27.3	29.2	4.6
Lead 10.3%	561	2.3	12.8	7.234				1.8	61.	11.7	CaO1.0
Ars.15 Bis.01	1064	1.5	1.8	6.82	10.09	247.86	7-'37	4.0	47.8	26.1	

All the above concentrates were treated with home made flotation outfits and with just drip faucets as feeders and without a proper classifier. Now there is proper equipment on hand in the Steen Mill on Lot 38 B. at Yellow Jacket,Lemhi Co.,Idaho. These remarks apply to the following samples taken from different steps in the Mill:

	Copper	Lead	Silver	Gold	Insol.	% Iron
Cordoroy Sulph.Concts.	3.8%	2.0%	3.83 oz.	5.07 oz.	45.4%	%Iron20.5
Oxidized Table "	6.8	8.3	17.78	1.52	26.1	28.8
Table Low Grade Sulphide Concs.	9.0	0.05	2.20	1.0	15.4	34.0
Flotation Cleaner Oxides *	4.2	11.9	72.75	2.75	47.9	15.5
" Settling Tank Sulph.Concs.	4.35	4.5	29.65	0.80	54.2	14.5
" Cleaner Cell Concentrates	24.1	1.6	10.95	0.65	19.0	23.7
Table High Grade Sulphide Concs.	4.55	0.9	2.54	1.96	2.0	42.2

*Some of ore treated was ruch silver-lead ore from dump near shaft"D"collar at Apex.

The following was a flotation test made at Combined Metals Reduction Co.Bauer Plant on June 22,1937 and June 23,1937.#1 and #2 were labeled Madill-Evans Test Head

Sulphides from #3 adit	weight	Gold ounces	Silver ounces	Iron %	Insol.	Copper%
#1		.33	0.57	11.7	64.4	3.55
#2		1.04	14.82	24.6	29.2	9.35
Composite -Heads	%	0.53	5.57	19.8	41.6	7.3
Copper Concentrate	12.9	2.06	33.64	25.9	1.0	33.0 %
Iron Concentrate	22.4	0.82	6.38	39.7	7.8	2.1
Bulk Tails	60.4	0.225	0.9	3.2	84.4	0.8
Copper Cleaner Tails	4.3	2.18	22.62	24.5	16.0	19.3
Final Tails	60.4	.03	.30	2.6	86.0	0.3
Calculated Heads		.56	6.92	14.8		5.7
Expected Recoveries		97.0%	97.4%			96.9%
Copper Concentrates		47.5	62.7	22.5		74.2
Iron Concentrates		32.8	20.6	59.9		8.2
Cleaner Tails		16.7	14.1	7.1		14.5
Tails		3.0	2.6	10.6		3.1

This shows the results that could be expected by selective or differential flotation when proper equipment is used in the Steen Mill. Shows that iron conc. could be cyanided at Y.J

Mr. Evans said that this preliminary test indicates that good recoveries can be had. Total recoveries of all products (except final tails) can be added together as an indication of what could be done in a mill.The iron concentrates were not cleaned. When I return I will run a series of tests(said Jim Evans to Keith Madill & H.S.Steen This crude ore tested had stood in sacks at Challis for four years in a barn there. For further information write to H.S.Steen,Steen Mine, Yellow Jacket via Forney,Idaho

SAMPLES & ASSAYS FROM STEEN PROPERTY.Yellow Jacket,Lemhi County,Idaho.May 18,1939.
Taken by Earl F.Hanson.Assayed at Dividend, Utah.Wallace Peck was Hanson's Assistant

Width in Feet	Description	Ft.to face	Fr.Portal	No.	Gold	Silver	Copper%
3'	cut left side across from xcut 746'		139'	223	.09		1.50% Quartz
	iron copper sulphides-CR-scattered cu stain						
5'	cut left side-scat.qtzite-	740'	145'	224	.01		1.10 Cu stain
Three-6 ft.cuts-2'apart along xcut		750'	135'	226	.18	.15	.70% rght side
Two-5'cuts Right side 20'in xcut fr.dft.(main)				227	.02		1.30%
	scattered Qtz X Sulfide in CRooscut. This is the Hisey xcut meets Columbia dfrt.						
43'	to main#3 drft picked sample sulfides.Sample No.			228	1.00	.60	.40 inXcut
3'	BF-left side sulfide-Cu Qtz ore.end drft			229	.12		3.40
	End of Hisey N 35 E drift fifty feet from main drift #3 on Continental Claim.						
4'	TF(~~tep~~ fault) end of Hisey drift shattered Qtzite under fault #231						No values
3'	BF at end of Hisey drft scattered sulfide x Qtz in CR under #231 sample			232	.18		1.00% copper
2-6'cuts	Mixed-Qtz-Qtzite Cu.sulphides-Columbia Drift(N 60 West) South side			234	.05		1.30
5'	cut right side opposite dft mixed Qtz-Cu and Sulphides in CR.			235	.04		.70
2'	cut of flat diabase at south end of stope			235	no values(Columbia Stope)		
5'	cut left side of mineralized quartzite			236	.05	---	---
6'	cut right side of mixed quartzite x sulfides			237	.4 xCu-25' to main drift#3		
5'	cut mixed sulfides x Cu x Qtzite on LS at corDfts			238	.13		.5
2'	cut of vein by winze on main dft on pillarbet "			239	.10		1.30
#3	addt 3' cut back no ore on sides 777' to face-108'			220	.29	.6	2.40
	108' to portal Iron oxides & chalcopyrite C.R.						
Cu stain and chalcopyrite 4' cut right side 757'-128'				221	.06	.65	3.50 Qtz.Cr.
5'	cut left side"across"from Xcut 750' to face-135'P.			222	.02	.5	4.20 Qtz.Cr.
3-5'cuts	RS 20' ~~in-XC-fr.~~#3scat.qtz&sulfide ~~in-CR.~~			225	.03bet.dfts.		.7 735'-740'
2-5'cuts	along LS of XC-12' from#3 scat.qtz & sulf.			227	.02 oz.Au		In Cr.Hisey
5'cut	RS scat.qtz-Cu-Sulf.inCR. ----------			230	no values 50' to main dft.		
Above samples taken in #3 adit and following above #3 level.							
#2	tunnel LS at Portal bre.qtzite under qtz vein			214			1.50 2' cut
""	" portal mixed qtzite x Qtz Str 5'cut			213	.10	.65	2.50
#3	4'cut above bench connec.2 stopes mixed scraps of Cu & Broken Quartzite			233	nothing		
#1	drift left side near face 12"-36"(3')cut			207	.10	1.35	1.70
#1	" 14" cut right side near face			208	.05	3.90	1.90
#1	drift 50' to Face 6'cut left side.Highly oxidized Quartz Cu Stain limonite C.R.			210	.09	.4	.3
#1	drift 30' to face Bunch LS-Qtz.Calcite 4' cut			209	--	Trace	-- some Fe mat.
#1	drift 24' to main drift bunch on right side-Left Xcut-24" cut copper stain,Qtz and some galena			211	.10	14.80	1.60%
#1	drift-LeftXcut 4' cut Left Side of shaft-soft altered qtzite limonite- and quartz			212	.52	2.10	.4
#1	drift RightXcut 15' to Main dft highly oxidized qtzite-limonite-5 ft.cut right side ~~(N-10-West-??)~~			213	.08	.4	.7
SURFACE-APEX Workings 18" at face in little Z drift 54' in strikes S 10 East				200	.78	.2	
Little Z Oxidized Qtz dump sample(waste dump??)				201	.07	.30	
Little "O" Fine oxidized material in ore dumpTramhead				202	.22	.3	.8
" " cu stain,qtzite,pyrite,quartzMainly dumpore				203	.08		.2%
42'	to face little"O" cu stain-qtzite pyrite S33EVein			203	.16	.5	N60W-SWF 2' cut
Little"O" 42'	to face S33E NE F-Mixd QtzxQtzite 2'cut			204	.02		.3%
100 ft.shaft on ridge(D) picked sample Cu St.qtz				205	.01	.65	20.40%on dump
" " " " " " gen.sample dump highly oxid.				206	1.24 oz	1.8	.3%copper

Sample Numbers (with gold in ozs.per ton) were taken at top of Steen Hill in 1939 on Lincoln Fraction Ore Claim. 200-204 were from work(discoveries) done on the property in last three years.

An average of 34 of the above samples of Hanson's gives $11.69 gross assay values in gold,silver and copper. .19 gold in ozs. .88 ozs Silver 1.7% Copper
$6.65 " .62¢ " $4.42 "

This calculation left out samples 230,231,233,235,&209 only.(wall rock materials)

The Steen Mining Property is in town or camp of Yellow Jacket, Lemhi County and about twelve miles west of Forney,Idaho to which point water grade road roads lead from Challis (via Morgan Creek);Salmon(via Williams Creek and Mocassin Creek) and Shoup(via Big or Panther Creek)and Leacock.
H.S.Steen has copies of above samples of Hanson's.Also he has at 2804 Kelsey St., Berkeley ,Calif. copies of samples and assays of Hershey,Oscar;C.Y.Garber;O.C. Dupuis;Bash;Kildale and Anderson ;Wallace Peck;R.N.Merrill;D.M.Steen; W.C.Austin; Mines of Standard Silver Lead Co.;W.K.Horning;W.G.Lundstrum;McDonald(T.M.Co.)etc.

EXCAVATING GRADING FILL HAULIN

H. S. STEEN

PHONE
BERKELEY 5911

H. S. STEEN
GENERAL CONTRACTOR
2804 KELSEY STREET
BERKELEY, CALIFORNIA

U.S.G.S.
RECEIVED
JUL 9 1943
Boise Ton

July 6th, 1943.

Dr.Philip Shenon,
U.S.Bureau of Mines,
Salmon or Spokane.

Dear Phil:

I feel we have a lot of outcrops and gossans which may be sitting right over some major ore bodies of copper and lead.

In fact at Yellow Jacket we have one ore body 200 x 150 feet and which shows on the surface from 50-150feet vertically above. Quite a bit of the copper has been leached from it where the gulch passes over it.However, we have shipped quite a bit of copper (chalcopyrite) minerals from it and it carries well in gold and some silver.

Another ore body at the apex of the hill bears even more promise. Mr.Erdlich said he might recommend it for a diamond drilling proposition by the Bureau of Mines.

I would be glad to take road contracts and diamond drilling contracts.Also I have a vast amount of milling and mining equipment (clear) and would like to do work for the Bureau of Mines or USGS or War Minerals Branches. For example if the diamond drilling has shown up good bodies of copper at Mackay I would like to take a contract to mine and mill it.

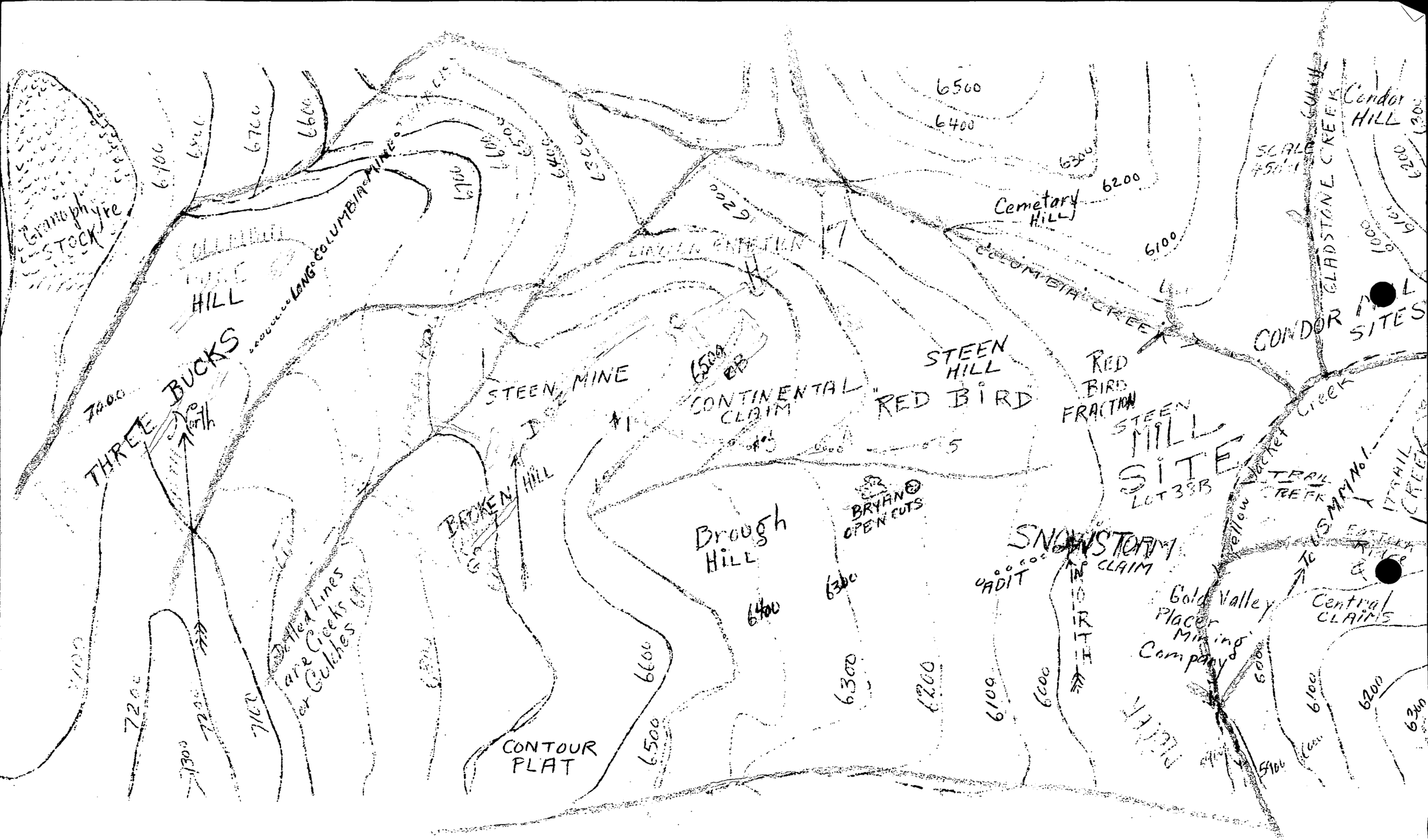
I recently completed a million ton job here on National Defence Work(quarrying with dump truck hauling).We did the work very reasonably(80¢ per ton) considering some blasting,shovels,bulldozers and 7 mile dump truck haul were involved(6000 tons per day).

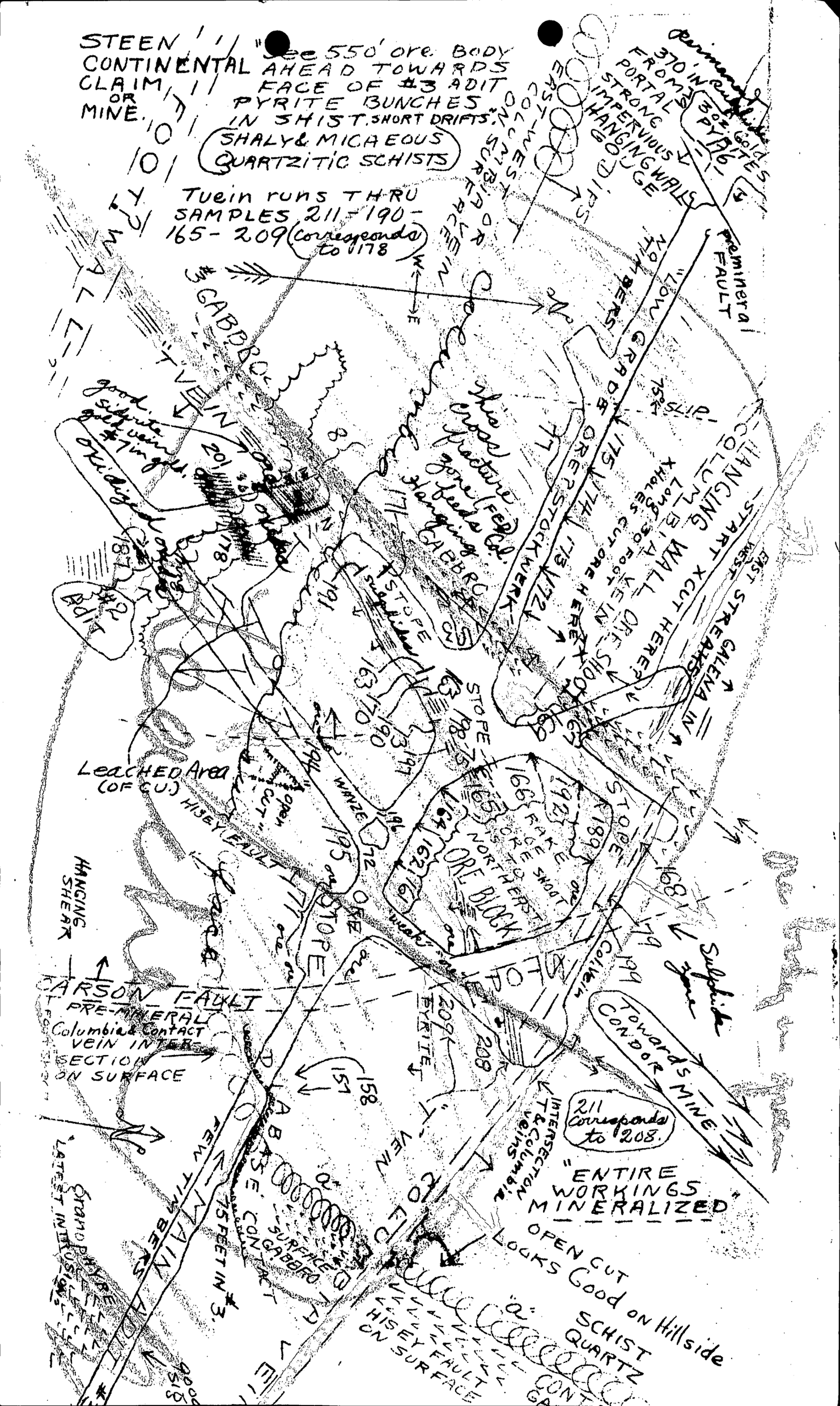
If you hear of any opportunities for mining or quarrying contracting please let me know of them. If I could personally show you our property at Yellow Jacket I am sure you would be surprised. The geology seems perfect and so does the structure and the only trouble I can see with the ore bodies might be that we have fifty of them in camp ready to be taken to the mill when mined. The ore bodies are in a sedimentary shaly schist and seem to be connected to granophyre and basic dikes and in some cases parallell them and with argillite walls on each side of the ore body.

Very truly yours,

H. Steen

Forney,Idaho.


Granophyre STOCK
THREE BUCKS HILL
LONG COLUMBIA MINE
LINCOLN EXTENSION
STEEN MINE
CONTINENTAL CLAIM
STEEN HILL
RED BIRD
RED BIRD FRACTION
Cemetary HILL
COLUMBIA CREEK
GLADSTONE CREEK
Condor HILL
CONDOR MILL SITES
STEEN MILL SITE
LOT 33B
BROKEN HILL
Brough HILL
BRYHAN OPEN CUTS
SNOWSTORM CLAIM
ADIT
Gold Valley Placer Mining Company
Central CLAIMS
Dotted Lines are Creeks or Gulches
CONTOUR PLAT
6500
6400
6300
6200
6100
6000
7000
7200
7100
7300
6600


STEEN CONTINENTAL CLAIM OR MINE.
"See 550' ore BODY AHEAD TOWARDS FACE OF #3 ADIT
PYRITE BUNCHES IN SHIST. SHORT DRIFTS.
SHALY & MICACEOUS QUARTZITIC SCHISTS
Tuein runs THRU SAMPLES 211-190-165-209 (corresponds to 178)
370' in from PORTAL
STRONG IMPERVIOUS HANGINGWALL
30% PYRITES
Premineral FAULT
GABBRO
"TUEIN"
good, sulphide gold vein in gold.
Oxidized
#2 Adit
Leached Area (of Cu.)
HISEY FAULT
HANGING SHEAR
CARSON FAULT
PRE-MINERAL
Columbia & Contact VEIN INTERSECTION ON SURFACE
FEW TIMBERS
"LATEST INTRUSION"
Granodiorite
75 FEET IN 3.
MAIN
CONTACT
SURFACE
GABBRO
"TUEIN"
HISEY FAULT ON SURFACE
OPEN CUT LOOKS GOOD ON HILLSIDE
SCHIST QUARTZ
"ENTIRE WORKINGS MINERALIZED"
211 corresponds to 208.
INTERSECTION Tuein & Columbia veins
Towards CONDOR MINE
Sulphide Zone
Collein
FAKE ORE SHOOT
NORTHEAST ORE BLOCK
STOPE
ORE
WANZE
"weak" ore
209 PYRITE
157
158
195
196
172
194
190
191
178
201
181
179
170
169
168
167
166
165
164
163
162
161
160
159
ORE GRADE "LOW GRADE"
175' SLIP
175 VEIN ORE STOCKWERK
173 VEIN
172
HANGING WALL ORE SHOOT
START XCUT HERE
Long 30 foot cut ore here
Xhales
GALENA IN EAST STREAKS
WEST
Premineral Gold
Fracture zone (Fe) Cal. Feeds Hanging
GABBRO
Open cut
Premineral FAULT