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REPORT ON THE AUSTERLITZ MINE
Oro Blanco Mining District
Santa Cruz County, Arizona

INTRODUCTION

The Austerlitz Mine was brought to the attention of Essex in March 1974 by Lyall Lichty who had sampled the property in 1963. At that earlier date persistent gold and silver values were encountered but the grade was too low at 1963 prices to justify continued interest. Lichty showed the property to Paul Eimon and J.K. Jones, and was asked by Eimon to investigate the possibility of an option. On March 26, 1974 an option was signed on the three patented and eight unpatented claims owned by Horton Noon, a rancher in the area. Surrounding land appeared to be open for location so an eight-man Essex crew was mobilized and in two days, March 28 and 29, located 28 claims. An unusually high gold assay was obtained near the edge of the new claims and on April 6 four additional claims were located to protect this discovery. Evidence of other ownership was found in the area and is being investigated.

Five days were spent by J.K. Jones mapping geology and taking additional samples. John Wilson conducted a reconnaissance investigation of other mineral occurrences and a photo-anomaly south of the Austerlitz property.

LOCATION

The property is located in the Oro Blanco Mining District in Santa Cruz County, Arizona, about five miles north of the border with Mexico. The nearest town is the small ranch community of Arivaca in Pima County 10 miles to the northwest by graded dirt road. Nogales lies 35 miles to the southeast by way of a very slow mountain road, and Tucson is 65 miles to the north. Most of the claim group falls in Section 36, T.22S., R.10E., but some claims extend into adjacent sections on the north, east, and south. Elevations range from 4050 feet to 4801 feet.

PROPERTY

Horton E. Noon of Nogales, Arizona owns three patented and eight unpatented mining claims covering approximately 220 acres. Noon has signed an option with Lyall Lichty containing the following provisions.

1. Rent and Royalty. A seven month free period is granted after which payments of \$500 per month are required. After Jan. 1, 1976 monthly payments increase to \$1,000. All monthly payments are credited against royalties. A royalty of 10% of net smelter returns will be paid on any ore or concentrate shipped to a smelter. In the event gold and/or silver bullion is produced a royalty of 5% will be paid.
2. Work Obligations. Lessee will perform annual assessment work of \$800 beginning with the current year. Prior to seven months after signing the contract drilling will be commenced and 1000 feet of hole will be completed in the 12 month period following the initial seven month period. By January 1, 1976, a total of 2500 feet of rotary or core drilling will have been completed.
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The lease and option with Noon was obtained by Lyall Lichty in his name in order to simplify the negotiations and take advantage of a prior relationship. Lichty will transfer the lease and option to Essex at no cost.

HISTORY, PRODUCTION

In the 1936 Arizona Metal Production bulletin a total of \$90,000 production is credited to the Austerlitz Mine. It seems likely that some early production has not been recorded, and several shipments are known to have been made after 1936.

In 1963 Platoro Corporation drilled, blasted, and shipped five 50-ton samples to the ASARCO smelter at Hayden, Arizona. Results from these samples are listed below.

Number	Gold oz/ton		Silver oz/ton		Copper %	
	Jacobs	ASARCO	Jacobs	ASARCO	Jacobs	ASARCO
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4	0.035	0.025	3.15	3.71	1.07	0.90
5	0.030	0.015	1.10	0.82	0.16	0.09
Average:	0.025	0.019	1.59	1.60	0.35	0.24

At 1963 prices this grade was not attractive and Platoro dropped their option on the property. However, at present prices, which for the sake of simplicity are being considered \$150.00 per ounce for gold and \$5.00 per ounce for silver, the precious metal content of the samples would have a value of from \$10.85 to \$11.70 depending on which of the two assays are used.

GEOLOGY

Geology of the area is complex and will require more detailed study in order to fully evaluate the features controlling gold-silver-copper mineralization. However, geologic observations and sampling by Essex and other references on the area provide a general geologic picture and some details on the ore occurrences.

Host rock to the mineralization is a metamorphosed rhyolite or dacite volcanic rock that appears to strike northwesterly and dip moderately to the northeast. This volcanic rock is thought to be of Jurassic age and is cut by three distinct, younger intrusive rocks. Oldest of the intrusives is a Jurassic quartz monzonite which occurs as several elongate bodies 1000 to 2000 feet west and southwest of the old mines. About 1000 feet south of the mineralized area is a diorite intrusive one-half mile in diameter that is considered to be Cretaceous in age. A series of west to northwest trending irregular quartz diorite porphyry to quartz monzonite porphyry dikes and plugs of Laramide or early Tertiary age are closely associated with mineralization although no mineralization is known to occur in this rock type. One of the most prominent geologic features is a strong north-west trending, northeast dipping fault situated only a few hundred feet north of the mineralized area and separating the volcanic and intrusive rocks on the south from Cretaceous sedimentary rocks and diorite intrusives on the north. No mineralization is known north of the fault in the Austerlitz Mine area, but two miles to the east on the north side of the fault is the Montana Mine at Ruby, Arizona, which through June 1938 had produced the metals listed below.

oz. Gold	oz. Silver	lb. Copper	lb. Lead	lb. Zinc
36,715	3,058,168	3,529,114	46,022,953	38,976,238

If produced at present prices this metal would have a possible value of about \$44,000,000.

In the vicinity of the Austerlitz Mine workings is a northwest trending band of irregular dike and plug-like bodies of quartz monzonite to quartz diorite porphyry about 4000 feet in length and up to 800 feet wide. Mineralization occurs in the altered volcanic rocks immediately adjacent to the intrusives and consists of numerous small irregular quartz veinlets accompanied by variable but generally weak quantities of iron oxides,

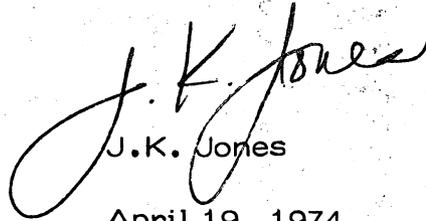
pyrite, and locally chalcopyrite, tetrahedrite and galena. Most mining has taken place in localities where this type of mineralization is comparatively intense with the host volcanic rock being brecciated and largely replaced by hydrothermal quartz. Mineralization as exposed at surface is irregular and discontinuous and may be controlled by irregularities in the intrusive contacts. Four of the Platoro 50 ton samples are from this zone and average 0.023 ounces gold, 1.2 ounces silver, and 0.17% copper. At an assumed price of \$150 per ounce for gold and \$5 per ounce for silver the precious metal contained in this material would have a gross value of \$9.45 per ton. Eight hand samples taken during the recent examination representing the same general locus, but with considerable care taken to select only portions of the mineralized zone exhibiting weaker mineralization than in the Platoro samples, average 0.013 ounces gold and 1.14 ounces silver with a value of \$7.65 per ton. A conservative estimate of the quantity of this character of material is in the range of 40,000 tons for each foot of depth, although much more detailed mapping and sampling will be required for confirmation.

Several other loci of mineralization occur to the west and northwest of the area of known mineralization, but only a few of the available assays from these zones contain substantial gold and silver values. Copper sulfides and oxides are seen, but mineralization and geologic features do not suggest a porphyry copper environment. Oxidation appears to be shallow except on a few narrow fracture zones, but most surface samples have been leached of any original copper content. It is possible that the gold-silver mineralization will be accompanied by 0.10 to 0.26% copper as indicated by Platoro samples, and that this copper would add significantly to the value of the ore.

CONCLUSIONS

Preliminary investigation indicates the potential for development of 40,000 tons per vertical foot of gold-silver ore containing between \$7.65 and \$9.45 per ton in gold and silver at a price of \$150 per ounce gold and \$5 per ounce silver. Copper content may be sufficient to increase the gross value of this ore by \$1 or more. If this material can be proven to a depth of 100 feet a total of 4 million tons would be developed which could support a 1000 ton per day open pit operation for about 10 years. Some chance exists for developing much larger tonnages, but this involves high risk and considerable exploration time and expense. A logical first step at the Austerlitz property would be to confirm the suggested 40,000 tons per vertical foot by road building and extensive bulk sampling followed by a minimum amount of drilling for exploration at depth. Such a program would cost about \$26,000 and require three months for completion. If results were favorable a much more extensive drilling program costing in the range of \$75,000 to \$90,000 would be required to prove ore at depth.

This prospect represents a good exploration target for a medium sized, low grade, open pit gold, silver, copper operation that can be tested at relatively low cost.

A handwritten signature in cursive script, reading "J.K. Jones".

J.K. Jones

April 19, 1974

JKJ:td

U. S. BUREAU OF MINES
War Minerals Reports pertaining to Arizona

Report no.	Title	County	No. of pages.
16	Santa Catalina Copper Deposits	Pima	11
36	Republic & Mammoth Mines	Cochise	6
38	Zonia Mine	Yavapai	8
47	Twin Buttes Mine	Pima	20
58	Lake Shore Copper Property	Pinal	6
64	Custom Mill-Parker District	Yuma	13
88	Manganese - Artillery Peak Flotation & Sintering Plant	Mohave	29
120	Zonia Mine (Supplement to WMR 38)	Yavapai	7
130	Verdun Mine	Graham	3
142	Reward Property	Pinal	10
154	Concentration of oxide manganese ores - Long Valley	Coconino	19
171	Coronado Mine	Pima	5
172	Coronado Mine (Supplement to WMR 171)	Pima	8
244	Concentration of Manganese ore - Artillery Peak & Capin deposits	Mohave	12
245	Pilot Plant concentrating Manganese ore - Artillery Peak	Mohave	23
248	Concentration of oxide Manganese from Havasu Lake District, California and Arizona	(None stated)	16
275	Old Reliable Mine	Pinal	12
291	Suggested mining methods at Christmas Mine	Gila	12
304	Arizona Asbestos	Gila	14

War Minerals Reports pertaining to Arizona

Report No.	Title	County	No of pages
308	Concentration of Miscellaneous oxides of Manganese ores	Maricopa Mohave Yavapai Yuma	22
312	Nunnelly Claims	Cochise	4
337	Sullivan Mine	Cochise	8
339	Christmas Mine	Gila	16
366	Snowball	Maricopa	18
368	Phillips-Gardner no. 4	Gila	16
370	Asbestos Mines	Gila	18
371	Reynolds Falls Group	Gila	12
372	Enders White Tail no. 2	Gila	10
373	Kyle's Sloan Creek Group	Gila	6
378	Van Dyke Copper Mine	Gila	20
403	Effect of the war on Mining & metallurgy in Arizona	(none stated)	34
405	Esperanza property	Pima	6
419	New Planet	Yuma	14
436	Apex Property	Coconino	8
453	Bullard Mine; Pierce Mining District	Yavapai	5

RECOMMENDED AUSTERLITZ PROGRAM

1. Approve \$500 expenditure to ~~of~~ obtain large scale air photos that can be enlarged to a scale of 1 inch to 100 feet. John Wilson and JK. Jones will use these photos to obtain greater geologic detail in order to define size and shape of mineralized bodies.
2. Preliminary metallurgical tests on two 200 pound samples, No. 1197 from site of old bulk sample 3 and 1198 from site of bulk sample 5, are being completed.
3. All samples important to ore reserve determination are being run on a 3 assay ton basis in order to provide more accurate assays in the low grade ranges being encountered. An additional 50 to 100 samples will be taken ~~and~~ analysis will cost \$250 to \$500.
4. ~~to~~ The 32^{mining} claims stated by Essex ~~will~~ ~~have to~~ should be validated. This work should start no later than June 1 and will cost about \$3500. Claim corners also must be ~~checked~~ ~~and~~ ~~but~~ ^{and} this can be done by ^{the} Essex personnel survey crew.
5. Most of the above suggested work will be completed by the end of June and will provide the ~~necessary~~ information necessary to justify submitting an RFA. This RFA may differ somewhat from the \$26,300 estimate previously made as more detailed geologic study and sampling in the interim ~~will~~ probably will result in a somewhat lessened need for bulk surface samples and an increased need for drill holes.

JK. Jones
May 3, 1974

Sample Number	Description	Oz. Gold	Oz. Silver	% Copper	Value per ton gold @ \$150	Value per ton silver @ \$5	Gross Value	Comment
1	50 ton bulk sample	0.020	1.05	0.15	\$ 3.00	\$ 5.25	\$ 8.25	
2	" " " "	0.015	1.00	0.10	2.25	5.00	7.25	
3	" " " "	0.025	1.65	0.26	3.75	8.25	12.00	Samples taken by Platoro Co
4	" " " "	0.035	3.15	1.07	5.25	15.75	21.00	and shipped to ASARCO's Ha
5	" " " "	0.030	1.10	0.16	4.50	5.50	10.00	
1151	Specimens from small stockpile	0.59	5.0		88.50	25.00	113.50	
1153	Chip sample of small outcrop	trace	0.1		-0-	0.50	0.50	High grade ore on dump of H
1154	5.0 ft chip of outcrop	0.17	0.7		25.50	3.50	29.00	Weak manganese stain.
1155	Grab	0.06	0.6	0.02	9.00	3.00	12.00	Good iron oxide.
1156	"	0.03	0.5	0.02	4.50	2.50	7.00	Altered volcanics north of st
1157	"	0.03	0.5	0.09	4.50	2.50	7.00	" " " "
1163	Chip of 10 ft square outcrop	0.02	0.7		3.00	3.50	6.50	Iron stained mine dump, som
1164	Chip of 3 ft square outcrop	0.02	0.5		3.00	2.50	5.50	Weak quartz veinlets and iron
1165	3.0 ft chip of outcrop	0.005	0.8		0.75	4.00	4.75	" " " " "
1166	5.0 ft " " "	0.01	1.0		1.50	5.00	6.50	Fair quartz veinlets, weak ir
1167	Chip of 2 ft by 3 ft outcrop	0.02	1.4		3.00	7.00	10.00	Represents at least 100 ft. w
1168	Grab of est. 5 ton stockpile	0.22	7.3		33.00	36.50	69.50	Breccia, abundant iron oxide
1169	Grab of est. 25 ton stockpile	0.02	1.4		3.00	7.00	10.00	Massive white quartz, some
1170	4.0 ft vertical chip of outcrop	0.01	0.7		1.50	3.50	5.00	May represent 50 to 100 ft. t
1171	Grab of outcrop	0.01	0.8		1.50	4.00	5.50	Abundant quartz veinlets, litt
1172	Grab of dump of shaft	0.01	3.2		1.50	16.00	17.50	Very weak quartz and pyrite.
1173	Grab of outcrop in gulch	trace	0.25		-0-	1.25	1.25	Moderate iron oxides.
1174	" " " " "	0.005	0.15		0.75	0.75	1.50	Altered volcanics, fair iron c
1175	5.0 ft chip sample	0.005	0.35		0.75	1.75	2.50	Iron stained bank exposed in.
1176	4.0 ft chip sample	trace	0.20		-0-	1.00	1.00	Fair iron oxides and quartz v
1177	7.0 ft chip sample	0.05	5.35		7.50	26.75	34.25	South wall of bulk sample loc
1178	5.0 ft chip sample of outcrop	trace	0.15		-0-	0.75	0.75	Strong quartz veinlets, very
1179	Grab of dump of tunnel	trace	0.30		-0-	1.50	1.50	Minor quartz veinlets and pyr
1180	7.0 ft horizontal chip sample	0.005	0.35		0.75	1.75	2.50	Good iron oxides, traces copp
1181	5.0 ft chip sample of outcrop	0.005	0.15		0.75	0.75	1.50	Broken, weak iron oxides.
1182	3.5 ft vertical chip	0.03	0.20		4.50	1.00	5.50	Good quartz veinlets and iron
1183	4.0 ft vertical chip	0.01	0.15		1.50	0.75	2.25	Moderate quartz, iron oxides
1184	6.0 ft vertical chip of outcrop	trace	0.10		-0-	0.50	0.50	Weak to moderate iron oxides
1185	Grab of 6 ft high outcrop	trace	0.15		-0-	0.75	0.75	Weak quartz and iron oxides.
1186	4.5 ft chip of outcrop	0.005	0.20		0.75	1.00	1.75	Iron stained, dark colored ou

FROM WORKSHEET

ESSEX INTERNATIONAL, INC.

FLOTATION TEST REPORT

NUMBER: 2126-2

DATE: 5-3-74

SAMPLE NUMBER: AUSTERLITZ 1197

CONDITIONS AND REAGENTS

Time	% Solids	pH	AF25	B#4	PAX	CuSO ₄	REAGENTS - LBS PER TON			

OBSERVATIONS

Grind

27.5

67

6.1

.02

.08

Conditioner

3.0

0.5

Rougher

1.5

.10

.10

Scavenger

9.0

.10

B#4 should be doubled to 0.16#/T.

Grind - 64.1% minus 200 mesh

No visible copper oxide minerals
METALLURGICAL RESULTS

SAMPLE NO.	PRODUCT	WEIGHT		ANALYSES				METAL BALANCE				% DISTRIBUTION		
		GMS	%	% Cu	Au oz/T	Ag oz/T	Cu	Au	Ag	Cu	Au	Ag		
2126-2	Conc.	31.3	3.1	1.95	1.27	39.31	6.045	3.937	121.86	83.9	87.1	75.9		
2126-2	Tails	968.8	96.9	0.012	0.006	0.40	1.163	.581	38.76	16.1	12.9	24.1		
Calc.	Heads	1000.1	100.0	0.072	.045	1.61	7.208	4.518	160.62	100.0	100.0	100.0		

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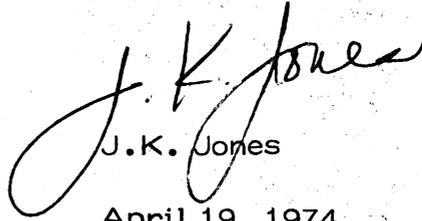
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CONCLUSIONS

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J.K. Jones

April 19, 1974

JKJ:td

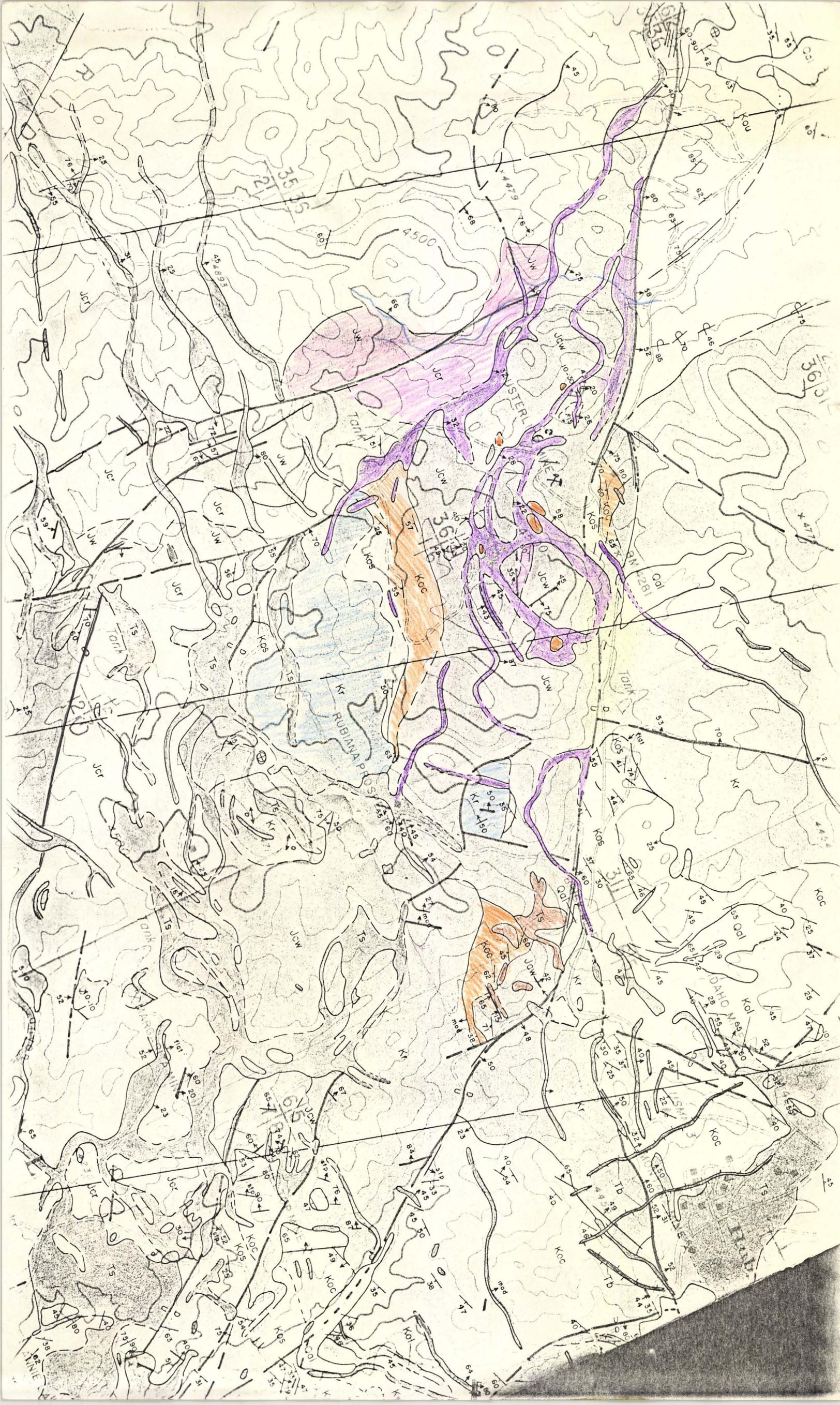
SUGGESTED AUSTERLITZ EXPLORATION COSTS

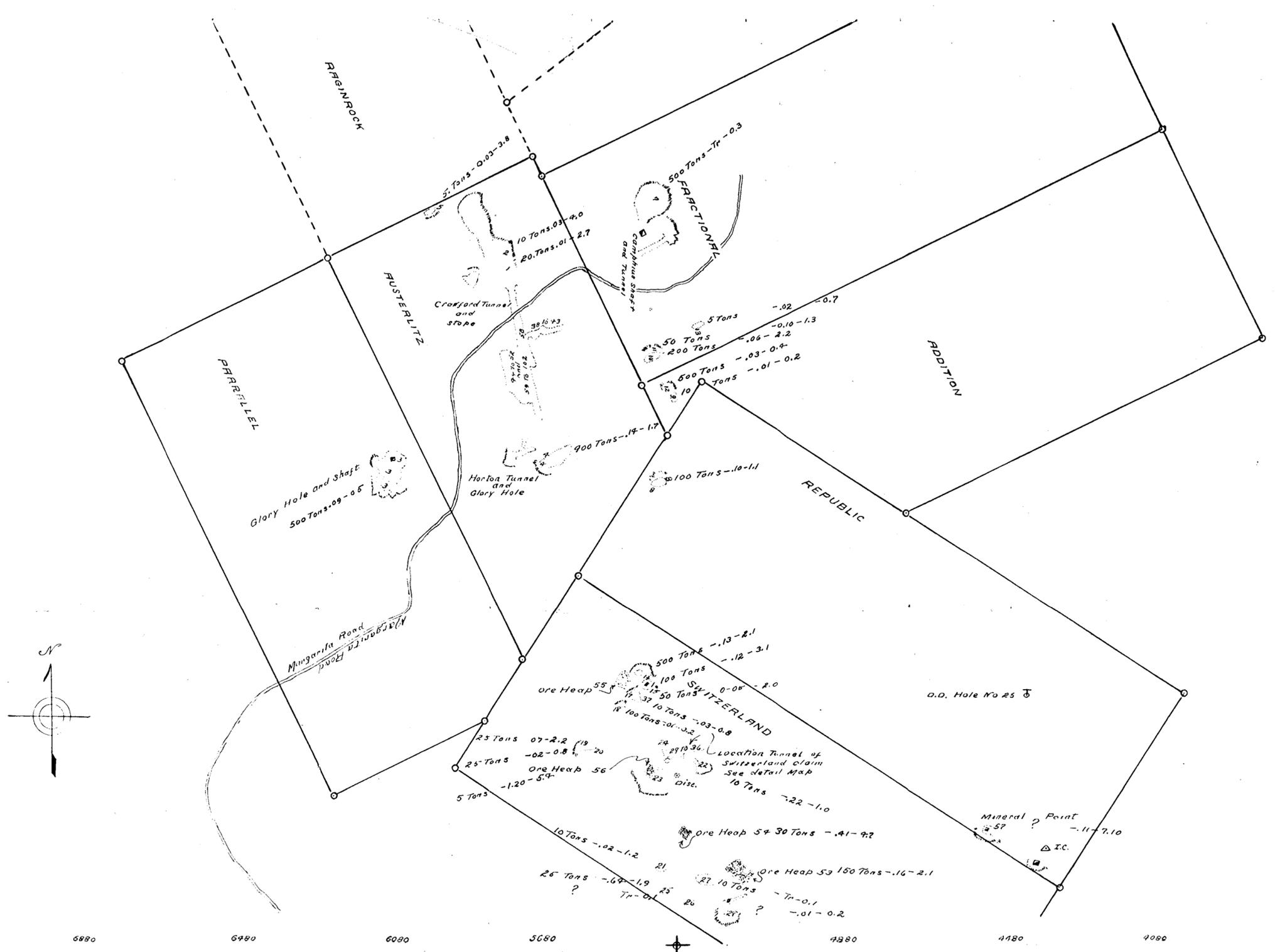
1. <u>Road and Drill Site Construction</u> 120 hours bulldozer time plus supplies, transportation, subsistence, \$55.50 per hour	\$ 6,660
2. <u>Sampling</u> Reynaldo Sanchez, contractor @ \$30 per day, helper @ \$20, equipment rental @ \$40, supplies @ \$30, workmans compensation @ \$5 Total \$125 per day for 30 days	3,750
3. <u>Assaying</u> 250 samples for gold, silver, & copper using 3 assay ton basis @ \$7.50 each = \$1875 Sample bags and other equipment \$325	2,200
4. <u>Claim Validation</u> 32 claims @ \$125 each	4,000
5. <u>Drilling</u> 800 feet rotary drilling @ \$6 plus \$400 mobilization	5,200
6. <u>Surveying</u> Supplies and equipment	800
7. <u>Air Photos</u> Large scale photography, 1" = 100'	1,000
8. <u>Camp Expense</u> Trailer rental and space in Arivaca @ \$300 per month	900
9. <u>Vehicle Rental</u> 3 months @ \$600 per month	<u>1,800</u>
Total	\$26,310

Sample Number	Description	Oz. Gold	Oz. Silver	% Copper	Value per ton gold @ \$150	Value per ton silver @ \$5	Gross Value	Comment
1	50 ton bulk sample	0.020	1.05	0.15	\$ 3.00	\$ 5.25	\$ 8.25	
2	" " " "	0.015	1.00	0.10	2.25	5.00	7.25	
3	" " " "	0.025	1.65	0.26	3.75	8.25	12.00	Samples taken by Platoro Co
4	" " " "	0.035	3.15	1.07	5.25	15.75	21.00	and shipped to ASARCO's Ha
5	" " " "	0.030	1.10	0.16	4.50	5.50	10.00	
1151	Specimens from small stockpile	0.59	5.0		88.50	25.00	113.50	
1153	Chip sample of small outcrop	trace	0.1		-0-	0.50	0.50	High grade ore on dump of H
1154	5.0 ft chip of outcrop	0.17	0.7		25.50	3.50	29.00	Weak manganese stain.
1155	Grab	0.06	0.6	0.02	9.00	3.00	12.00	Good iron oxide.
1156	"	0.03	0.5	0.02	4.50	2.50	7.00	Altered volcanics north of st
1157	"	0.03	0.5	0.09	4.50	2.50	7.00	" " " "
1163	Chip of 10 ft square outcrop	0.02	0.7		3.00	3.50	6.50	Iron stained mine dump, som
1164	Chip of 3 ft square outcrop	0.02	0.5		3.00	2.50	5.50	Weak quartz veinlets and iron
1165	3.0 ft chip of outcrop	0.005	0.8		0.75	4.00	4.75	" " " " "
1166	5.0 ft " " "	0.01	1.0		1.50	5.00	6.50	Fair quartz veinlets, weak in
1167	Chip of 2 ft by 3 ft outcrop	0.02	1.4		3.00	7.00	10.00	Represents at least 100 ft. w
1168	Grab of est. 5 ton stockpile	0.22	7.3		33.00	36.50	69.50	Breccia, abundant iron oxide
1169	Grab of est. 25 ton stockpile	0.02	1.4		3.00	7.00	10.00	Massive white quartz, some
1170	4.0 ft vertical chip of outcrop	0.01	0.7		1.50	3.50	5.00	May represent 50 to 100 ft. t
1171	Grab of outcrop	0.01	0.8		1.50	4.00	5.50	Abundant quartz veinlets, litt
1172	Grab of dump of shaft	0.01	3.2		1.50	16.00	17.50	Very weak quartz and pyrite.
1173	Grab of outcrop in gulch	trace	0.25		-0-	1.25	1.25	Moderate iron oxides.
1174	" " " " "	0.005	0.15		0.75	0.75	1.50	Altered volcanics, fair iron o
1175	5.0 ft chip sample	0.005	0.35		0.75	1.75	2.50	Iron stained bank exposed in o
1176	4.0 ft chip sample	trace	0.20		-0-	1.00	1.00	Fair iron oxides and quartz v
1177	7.0 ft chip sample	0.05	5.35		7.50	26.75	34.25	South wall of bulk sample loc
1178	5.0 ft chip sample of outcrop	trace	0.15		-0-	0.75	0.75	Strong quartz veinlets, very
1179	Grab of dump of tunnel	trace	0.30		-0-	1.50	1.50	Minor quartz veinlets and pyr
1180	7.0 ft horizontal chip sample	0.005	0.35		0.75	1.75	2.50	Good iron oxides, traces copp
1181	5.0 ft chip sample of outcrop	0.005	0.15		0.75	0.75	1.50	Broken, weak iron oxides.
1182	3.5 ft vertical chip	0.03	0.20		4.50	1.00	5.50	Good quartz veinlets and iron
1183	4.0 ft vertical chip	0.01	0.15		1.50	0.75	2.25	Moderate quartz, iron oxides
1184	6.0 ft vertical chip of outcrop	trace	0.10		-0-	0.50	0.50	Weak to moderate iron oxides
1185	Grab of 6 ft high outcrop	trace	0.15		-0-	0.75	0.75	Weak quartz and iron oxides.
1186	4.5 ft chip of outcrop	0.005	0.20		0.75	1.00	1.75	Iron stained, dark colored ou

AUSTERLITZ MINE

- Tb Blue Ribbon Dikes - Hornblende Andesite Dikes
IS Sidewinder QM (early Tert?)
Tmp Montana Peak Fm - Andesite Tuffs & Flows
- Kr Ruby diorite - Hornblende diorite + hornbl andesite
- Koc Oro Blanco Fm - conglomerate member
Kos " " ss & siltst. "
Kol " " ls "
- Jw Warsaw QM
- Jcr Cobre Ridge Tuff - Rhyolite member
Jca " " Arkose "
Jcw " " welded tuff "





No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag
1	0.01	2.2	16	0.02	1.3	31	0.02	0.2	46	0.03	2.12	61	0.02	6.2	76	0.08	1.3
2	0.03	4.10	17	0.03	1.10	32	0.02	1.10	47	0.12	14.14	62	0.01	8.2	77	Trace	0.2
3	0.02	0.15	18	0.01	0.0	33	0.02	0.0	48	0.05	10.10	63	0.01	8.6	78	0.12	1.2
4	0.14	1.2	19	0.02	2.0	34	0.02	0.0	49	0.04	14.14	64	0.02	10.2	79	0.02	2.2
5	0.03	3.10	20	0.02	1.0	35	0.03	0.0	50	0.10	4.10	65	Trace	0.2	80	0.02	12.2
6	No Sample		21	0.02	1.0	36	0.12	1.1	51	0.11	1.10	66	0.02	8.2	81	0.02	2.2
7	7.7	0.2	22	0.02	1.0	37	No Sample		52	0.15	4.2	67	0.02	8.2	82	0.03	2.2
8	0.12	1.1	23	0.02	0.0	38	0.02	2.1	53	0.16	2.1	68	0.02	4.2	83	0.02	3.2
9	0.12	0.12	24	0.02	1.0	39	0.02	0.1	54	0.11	4.2	69	0.02	9.2	84	0.02	3.2
10	0.10	1.2	25	0.04	1.0	40	0.02	0.1	55	0.46	5.5	70	0.02	12.2	85	0.02	3.2
11	0.10	1.2	26	7.7	0.0	41	0.02	2.1	56	1.29	5.2	71	0.03	1.2	86	0.02	7.2
12	0.10	1.2	27	7.7	0.0	42	0.02	2.1	57	0.11	2.1	72	0.12	2.5	87	0.02	5.2
13	0.10	1.2	28	0.02	1.0	43	0.02	1.0	58	0.02	0.2	73	0.02	1.2	88	0.02	1.2
14	0.10	1.2	29	0.02	1.0	44	0.02	1.0	59	0.02	0.2	74	0.02	2.2	89	0.02	1.2
15	0.12	3.1	30	0.06	1.0	45	0.10	1.0	60	0.02	0.2	75	0.02	2.2	90	0.02	1.2

MAP OF SAMPLES
SHOWING GRADE
TAKEN FROM THE
AUSTERLITZ-
REPUBLIC GROUPS
JUNE 1935 SCALE 1 IN. = 200 FT.
F. E. GREGORY

too sparsely distributed to permit determination of the paragenesis for this type of mineralization.

The relative ages of the quartz-sulfide veins and the silicified zones are unknown, for at no place has one been observed cutting the other. The same is true for the silicified zones and the other major type of mineralization, the breccia veins. The resemblance of the silicified zones to the usual steeply-dipping pyritic quartz vein suggests that the zones are tilted veins that formed before faulting and rotation of the Mesozoic rocks, but little evidence exists for this. The large displacement northwest fault that lies between contiguous portions of silicified rock (Figure 3) such as near the Austerlitz mine and one half mile south of the Rubiana prospect shows that the mineralization is younger than the faulting and therefore younger than the tilting of the host rock. The silicified zones are everywhere cut by dikes of Side-winder quartz monzonite so that these zones are probably about the same age as the quartz-sulfide veins. Three principal mines have been developed on this type of mineralization, the Margarita, Austerlitz, and Old Glory mines. In addition numerous prospects have exposed most of the pyritic areas in the outcropping silicified zones.

Austerlitz Mine. Development work at the Austerlitz mine consists of about 2,000 feet of lateral work on two levels and three shafts, two of which have been refilled. The remaining shaft is said to be 130 feet in depth. Other work includes numerous small open cuts and trenches and a small adit in a silicified zone on the hill southeast of the main workings.

Prior to the discovery of a blind oreshoot in 1912 most of the developments were on two steeply dipping northeast veins and on small high grade showings in exposed silicified zones.

Most of the production has been from the blind orebody that was discovered in 1912. This produced about \$96,000 in a two year period from what is now called the Crawford stope.

Two carloads of oxidized ore from the Barckley stope were shipped in the 1940's and a few tons of bulk samples were shipped from this property in more recent years for tests as a source of smelter flux.

The geology of the Austerlitz mine area has been studied in detail in order to determine the controls on mineralization. Another purpose of studying the Austerlitz mine was to determine the relationship of the Sidewinder dikes to the mineralization.

The geology of the mine surface and underground workings is shown in Figures 18 and 19. The dominant rock type in the area is the welded tuff member of the Cobre Ridge tuff. This is overlain by and in fault contact with a small thickness of Oro Blanco formation. The mine area has been complexly intruded by several thick dikes of Sidewinder quartz monzonite along pre-existing fractures and fault zones.

Mineralization at the Austerlitz mine is of two types, northeast quartz-sulfide veins and flat-dipping northwest-striking silicified zones. Neither type has been observed cutting the other. Judging from mineralogical similarities they may be of the same age.

The silicified zones have been most productive, but the veins are commonly higher in grade. This higher grade may be due to supergene enrichment that has not greatly affected the silicified zones.

The flat-dipping silicified zones are lenslike bodies of strongly silicified Cobre Ridge tuff that consist of a myriad of thin white quartz veinlets and stringers having a widely variable amount of disseminated pyrite, and small amounts of chalcopyrite and tetrahedrite. The precious metal values range from a mere trace to over 1 oz/ton in gold and 30 oz/ton in silver. Fifty-five samples taken in the Crawford stope (on the principal productive silicified zone) yield averages of .083 oz/ton in gold and 6.04 oz/ton in silver (Gregory 1935). The Crawford orebody consists of a northwest-striking silicified zone that dips at small angles to the northeast, ranging from 6° to 31°. Thicknesses of the ore zone range from zero to about 12 feet and average about 6-1/2 feet. The ore body is generally surrounded by Sidewinder quartz monzonite which is intrusive into the mineralization. It is an inclusion that is totally enclosed in Sidewinder quartz monzonite. At several places the mineralized zone pinches out to become a thin black parting line in a Sidewinder dike. This parting has been observed everywhere where the mineralization pinches out suggesting that the Crawford orebody has been caught between two separate Sidewinder dikes, one on the footwall and one on the hanging wall.

Other pieces of the same silicified zone that probably are caught between Sidewinder dikes are exposed just northwest of the

Crawford portal (Figure 18) and at the Ragnaroc mine, farther to the northwest. The hanging wall dike has been eroded to expose these segments of the zone but is intact over the Crawford orebody so that the orebody nowhere crops out.

Silicified zones similar to the Crawford orebody, but smaller, are exposed on the hilltop about 1,000 feet south of the main workings. Here a block of Cobre Ridge tuff, part of which is silicified, is surrounded by Sidewinder quartz monzonite. To the south is a wide exposure of silicified Cobre Ridge tuff that is still connected to the main body of the tuff (Figure 3).

The spatial relationship of the Sidewinder quartz monzonite to the silicified zones is merely structural and not a genetic association. The quartz monzonite is clearly younger than the mineralization. It seems that the same structures that localized the mineralization also served as the loci for intrusion of the Sidewinder dikes, a relationship that exists at the Montana mine in the quartz-sulfide vein type, and at the Tres Amigos mine in the breccia vein type (to be discussed later).

At the Austerlitz mine, evidence for the structures that localized mineralization is sparse, consisting only of a crackling and local brecciation of the Cobre Ridge tuff that is visible near the fringes of the silicified zones. Generally within the silicified zones the replacement of the host rock by quartz has been so extensive that no breccia fragments are recognizable.

Faults in the mine area have somewhat offset the mineralization and the quartz monzonite dikes. These strike about N 65° E and commonly dip from 40 to 80° northwards. The amount of displacement on these is unknown, but one which cuts the Crawford orebody has offset it only a couple of feet. The large fault zone that is parallel to the east end of the Barckley tunnel (Figure 19) probably has considerably more displacement.

Old Glory Mine (Esperanza Mine or Blain Ledge). The Old Glory mine has been developed on the southernmost exposures of the silicified zones. The mineralized zone forms a flat-dipping cap of a large hill so that much of the development has been done by surface stripping and a shallow open pit. In addition there is an underground stope measuring about 50 by 100 feet by 10 feet high. Two haulage tunnels have been driven under the workings from opposite sides of the hill that were fed by a chute from the open pit. In 1884 a mill was constructed on the property at the base of the hill along Old Glory Canyon. All haulage of ore was downhill. A private report on this property dated 1900 states that the reserves were 200,000 tons having an average value of \$5.00/ton. In view of the downhill haulage and surface stripping it may have been possible to mine this at a profit, although Blake(1899) states that the operation of this property would be very marginal. Estimates by the author indicate that about 17,000 tons of mineralized rock have been removed from all accessible workings. Judging from the size of the dumps remaining on the property certainly not over 3/4 of this amount has been milled. This would yield an estimated

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Old Glory Mine (Esperanza Mine or Blain Ledge). The Old Glory mine has been developed on the southernmost exposures of the silicified zones. The mineralized zone forms a flat-dipping cap of a large hill so that much of the development has been done by surface stripping and a shallow open pit. In addition there is an underground stope measuring about 50 by 100 feet by 10 feet high. Two haulage tunnels have been driven under the workings from opposite sides of the hill that were fed by a chute from the open pit. In 1884 a mill was constructed on the property at the base of the hill along Old Glory Canyon. All haulage of ore was downhill. A private report on this property dated 1900 states that the reserves were 200,000 tons having an average value of \$5.00/ton. In view of the downhill haulage and surface stripping it may have been possible to mine this at a profit, although Blake(1899) states that the operation of this property would be very marginal. Estimates by the author indicate that about 17,000 tons of mineralized rock have been removed from all accessible workings. Judging from the size of the dumps remaining on the property certainly not over 3/4 of this amount has been mined. This would yield an estimated

production of about \$63,000 from the property. The actual production is unknown to the author.

The Old Glory mine (Figure 20) is underlain by the welded tuff member of the Cobre Ridge tuff. The mineralized zone forms the cap of a steep-sided northwest elongated hill. The zone strikes N 30 to 60° W and dips 0 to 30° northeast. It dips more gently than the northeast side of the hill so that the downdip extension of the mineralization has been removed by erosion. Several hundred feet farther to the northeast the continuation of the mineralized zone crops out again.

The mineralization consists of a massive quartz core 10 to 30 feet in thickness bordered on the hangingwall and footwall by zones of flat-dipping quartz veinlets to form a silicified body that has a total thickness of about 50 feet.

Most of the development work is confined to the 4 to 12 foot thick pyritic quartz veinlet zone on the hangingwall. This area has been strongly oxidized so only rarely are any relict pyrite grains visible. In the subsurface stope small amounts of chalcantite have been observed, but in general the only visible minerals are quartz and iron oxides.

The core of the mineralized body consists of pure massive white quartz, although locally a few pieces of pyrite have been observed.

The quartz stringers and veinlets of the footwall resemble those of the hangingwall but generally contain very little pyrite.

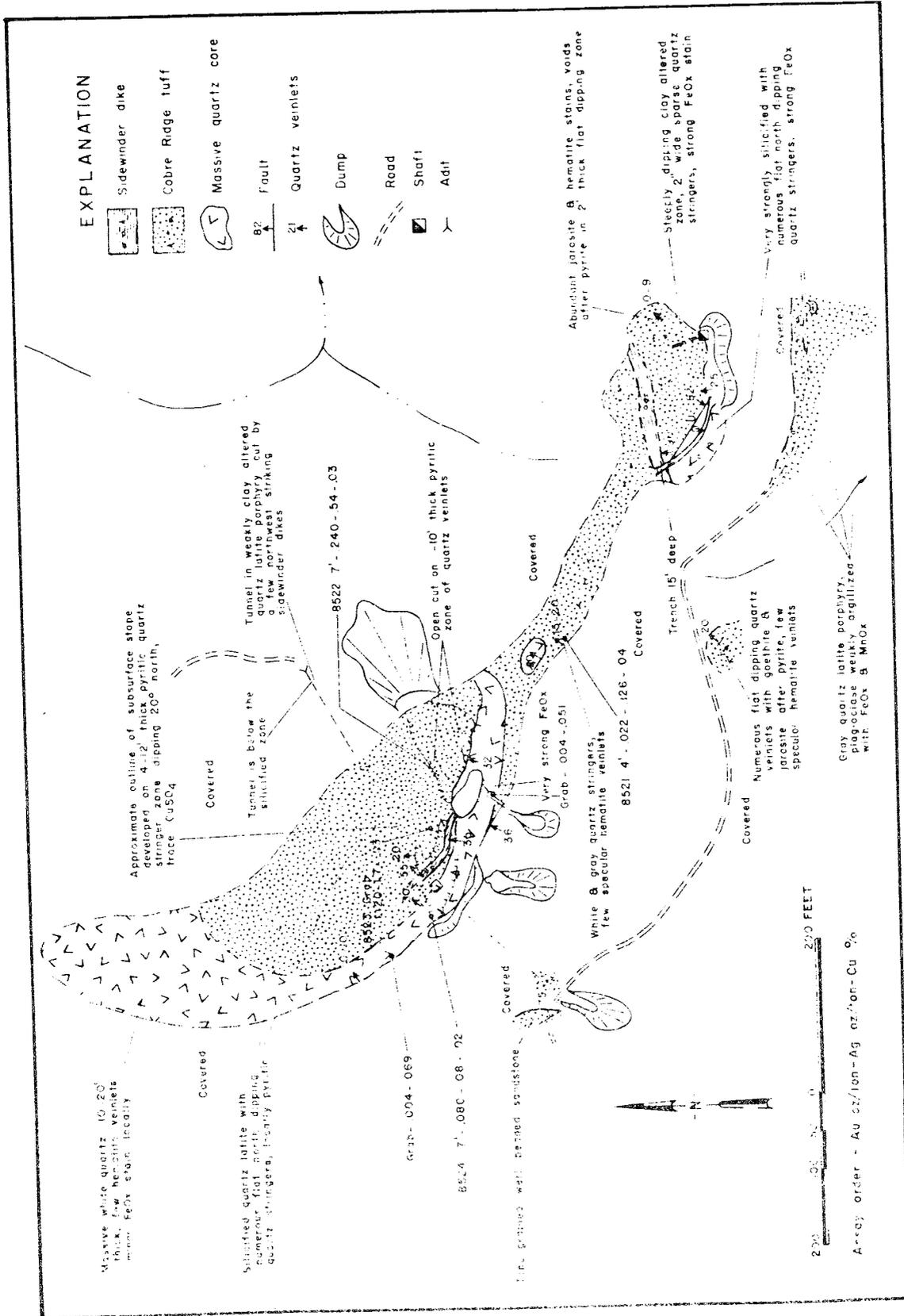


Figure 20. Geologic Sketch Map, Old Glory Mine

A few samples were taken at the Old Glory property from the three major divisions of the mineralized zone. The results are given below:

<u>Location</u>	<u>Width</u>	<u>Gold oz/ton</u>	<u>Silver oz/ton</u>
Hangingwall	7 feet	0.240	0.54
Hangingwall	grab	1.120	1.70
Core	7 feet	0.080	0.080
Core	grab	0.004	0.051
Footwall	4 feet	0.020	0.126
Footwall	grab	0.004	0.069

The sampling indicates that the best grade of mineralization is confined to the hangingwall zone, the most pyritic part.

Northwest faults of small displacement have slightly offset the silicified zone (Figure 20). They are downthrown on the southwest side and cause a repetition of the outcrops of the silicified zones. These faults probably have displaced the down-dip extension of the Old Glory zone to form the numerous patches of silicified Cobre Ridge tuff that crop out north of the Old Glory mine and near the Margarita mine. One of these faults has a throw of about 200 feet and separates two exposures of silicified rock on the north side of Old Glory Canyon (Figure 3).

After the offsetting of the silicified zones by the northwest faults the Old Glory mine was intruded by two small dikes of Sidewinder quartz monzonite. One of these has intruded parallel to the silicified zone. This is an example of the open pit in the

top of the ridge. The other dike cuts the mineralization obliquely, striking northeast and dipping nearly vertically. These dikes are very small compared to those at the Austerlitz mine, neither is over 20 feet in thickness. Localization of the mineralization by a fracture zone is even less obvious at the Old Glory mine than at the Austerlitz mine. Little evidence of brecciation or pre-mineralization faulting has been observed at or near the Old Glory property. Here the quartz veinlets have very diffuse contacts with the host rock, suggesting active replacement of the host. The veinlets are nevertheless parallel to one another and cut the foliation of the host rock at a large angle suggesting some sort of fracture control rather than replacement parallel to foliation planes.

Margarita Mine (McDonald prospect). Most of the description of the Margarita mine comes from Wilson and others(1934). The author has examined this property only in a very general way.

In the 1890's the property was prospected by about 1,200 feet of tunnels and shallow workings from which a small amount of gold was produced. From late 1931 through at least 1934 Margarita Gold Mines Company developed the property and produced gold bullion from a 50 ton/day cyanide mill. Production from this property is unknown. Two areas of silicified Cobre Ridge tuff have been opened by surface cuts. One of these near the mill site is about 200 feet by 100 feet by 80 feet in depth. This zone consists of numerous quartz veinlets and stringers in sericitized Cobre Ridge tuff that have abundant pseudomorphs of fluorite after pyrite. The areas containing the most

abundant pseudomorphs seem to be of highest grade as mentioned by Wilson and others(1934). This has been substantiated by the author from panned samples. Wilson further states that the mineralized area contains a large tonnage averaging .3 oz/ton in gold and .5 oz/ton in silver. About 1,000 feet to the east of these workings is another silicified zone that has been opened by a cut about 200 feet long by 30 feet wide by 10 feet deep. This has a winze extending to a depth of 50 feet at the northwest end. The cut is mainly in strongly iron stained, silicified, and sericitized Cobre Ridge tuff and a thin shear zone that dips gently northwards. In the winze the mineralization consists of white quartz and a large percentage of pyrite. It is not known whether any precious metals have been produced here or even if the zone contains significant amounts of gold or silver. Panning of the oxidized material from the cut reveals no gold whatsoever, but it might be too fine-grained to recover by panning. Such fine-grained gold has been found in the upper workings at the Austerlitz mine where material apparently barren of gold in the pan, assays 0.385 oz/ton.

Discussion and Summary. The flat-dipping silicified zones lie principally in two areas in the district. The one area near the Austerlitz mine contains several separate bodies of silicified Cobre Ridge tuff most of which are separated from one another by Sidewinder quartz monzonite. The many mineralized zones here probably represent fragments of one silicified zone that has been broken up and displaced by dikes of Sidewinder quartz monzonite and small displacement faults.

Likewise the silicified zones near the Margarita and the Old Glory mines probably are fragments of a single mineralized zone.

The significant points concerning the silicified zones are as follows:

- 1) They have been of economic significance only because of their precious metal content. Base metal minerals are very sparse.
- 2) They contain a large percentage of pyrite with which the precious metals are associated, but not all pyritic areas contain precious metals. Quartz free from pyrite is nearly barren of gold or silver.
- 3) The spatial association of the silicified zones with the Sidewinder quartz monzonite is a structural association, not a genetic one. The dikes are distinctly younger than the mineralization.
- 4) Although the age relationship between the quartz-sulfide veins and the silicified zones is uncertain, it is likely that they are nearly the same age.

Breccia Veins

The third major type of mineralization in the Oro Blanco district is that of mineralized breccia veins. These lie in a fairly well-defined area southeast of the Old Glory mine (Figure 17). They are northwest and north-northwest striking, steeply-dipping tabular zones of brecciated and sheared country rock. These range widely in width from an inch or two to about 35 feet, and within a given brecciated

REPORT ON THE AUSTERLITZ MINE
Oro Blanco Mining District
Santa Cruz County, Arizona

INTRODUCTION

The Austerlitz Mine was brought to the attention of Essex in March 1974 by Lyall Lichty who had sampled the property in 1963. At that earlier date persistent gold and silver values were encountered but the grade was too low at 1963 prices to justify continued interest. Lichty showed the property to Paul Eimon and J.K. Jones, and was asked by Eimon to investigate the possibility of an option. On March 26, 1974 an option was signed on the three patented and eight unpatented claims owned by Horton Noon, a rancher in the area. Surrounding land appeared to be open for location so an eight-man Essex crew was mobilized and in two days, March 28 and 29, located 28 claims. An unusually high gold assay was obtained near the edge of the new claims and on April 6 four additional claims were located to protect this discovery. Evidence of other ownership was found in the area and is being investigated.

Five days were spent by J.K. Jones mapping geology and taking additional samples. John Wilson conducted a reconnaissance investigation of other mineral occurrences and a photo-anomaly south of the Austerlitz property.

LOCATION

The property is located in the Oro Blanco Mining District in Santa Cruz County, Arizona, about five miles north of the border with Mexico. The nearest town is the small ranch community of Arivaca in Pima County 10 miles to the northwest by graded dirt road. Nogales lies 35 miles to the southeast by way of a very slow mountain road, and Tucson is 65 miles to the north. Most of the claim group falls in Section 36, T.22S., R.10E., but some claims extend into adjacent sections on the north, east, and south. Elevations range from 4050 feet to 4801 feet.

PROPERTY

Horton E. Noon of Nogales, Arizona owns three patented and eight unpatented mining claims covering approximately 220 acres. Noon has signed an option with Lyall Lichty containing the following provisions.

1. Rent and Royalty. A seven month free period is granted after which payments of \$500 per month are required. After Jan. 1, 1976 monthly payments increase to \$1,000. All monthly payments are credited against royalties. A royalty of 10% of net smelter returns will be paid on any ore or concentrate shipped to a smelter. In the event gold and/or silver bullion is produced a royalty of 5% will be paid.
2. Work Obligations. Lessee will perform annual assessment work of \$800 beginning with the current year. Prior to seven months after signing the contract drilling will be commenced and 1000 feet of hole will be completed in the 12 month period following the initial seven month period. By January 1, 1976, a total of 2500 feet of rotary or core drilling will have been completed.
3. Option to Purchase. Lessee can purchase the property for \$1,000,000 by making a down payment of not less than \$100,000 or more than 29% of the total remaining after deducting prior payments and royalties, and paying the balance remaining in 10 equal installments.

The lease and option with Noon was obtained by Lyall Lichty in his name in order to simplify the negotiations and take advantage of a prior relationship. Lichty will transfer the lease and option to Essex at no cost.

HISTORY, PRODUCTION

In the 1936 Arizona Metal Production bulletin a total of \$90,000 production is credited to the Austerlitz Mine. It seems likely that some early production has not been recorded, and several shipments are known to have been made after 1936.

In 1963 Platoro Corporation drilled, blasted, and shipped five 50-ton samples to the ASARCO smelter at Hayden, Arizona. Results from these samples are listed below.

Number	Gold oz/ton		Silver oz/ton		Copper %	
	Jacobs	ASARCO	Jacobs	ASARCO	Jacobs	ASARCO
1	0.020	0.003	1.05	1.11	0.15	0.09
2	0.015	0.005	1.00	0.91	0.10	0.03
3	0.025	0.045	1.65	1.45	0.26	0.09
4	0.035	0.025	3.15	3.71	1.07	0.90
5	0.030	0.015	1.10	0.82	0.16	0.09
Average:	0.025	0.019	1.59	1.60	0.35	0.24

At 1963 prices this grade was not attractive and Platoro dropped their option on the property. However, at present prices, which for the sake of simplicity are being considered \$150.00 per ounce for gold and \$5.00 per ounce for silver, the precious metal content of the samples would have a value of from \$10.85 to \$11.70 depending on which of the two assays are used.

GEOLOGY

Geology of the area is complex and will require more detailed study in order to fully evaluate the features controlling gold-silver-copper mineralization. However, geologic observations and sampling by Essex and other references on the area provide a general geologic picture and some details on the ore occurrences.

Host rock to the mineralization is a metamorphosed rhyolite or dacite volcanic rock that appears to strike northwesterly and dip moderately to the northeast. This volcanic rock is thought to be of Jurassic age and is cut by three distinct, younger intrusive rocks. Oldest of the intrusives is a Jurassic quartz monzonite which occurs as several elongate bodies 1000 to 2000 feet west and southwest of the old mines. About 1000 feet south of the mineralized area is a diorite intrusive one-half mile in diameter that is considered to be Cretaceous in age. A series of west to northwest trending irregular quartz diorite porphyry to quartz monzonite porphyry dikes and plugs of Laramide or early Tertiary age are closely associated with mineralization although no mineralization is known to occur in this rock type. One of the most prominent geologic features is a strong northwest trending, northeast dipping fault situated only a few hundred feet north of the mineralized area and separating the volcanic and intrusive rocks on the south from Cretaceous sedimentary rocks and diorite intrusives on the north. No mineralization is known north of the fault in the Austerlitz Mine area, but two miles to the east on the north side of the fault is the Montana Mine at Ruby, Arizona, which through June 1938 had produced the metals listed below.

oz. Gold	oz. Silver	lb. Copper	lb. Lead	lb. Zinc
36,715	3,058,168	3,529,114	46,022,953	38,976,238

If produced at present prices this metal would have a possible value of about \$44,000,000.

In the vicinity of the Austerlitz Mine workings is a northwest trending band of irregular dike and plug-like bodies of quartz monzonite to quartz diorite porphyry about 4000 feet in length and up to 800 feet wide. Mineralization occurs in the altered volcanic rocks immediately adjacent to the intrusives and consists of numerous small irregular quartz veinlets accompanied by variable but generally weak quantities of iron oxides,

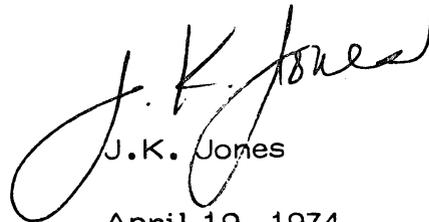
pyrite, and locally chalcopyrite, tetrahedrite and galena. Most mining has taken place in localities where this type of mineralization is comparatively intense with the host volcanic rock being brecciated and largely replaced by hydrothermal quartz. Mineralization as exposed at surface is irregular and discontinuous and may be controlled by irregularities in the intrusive contacts. Four of the Platoro 50 ton samples are from this zone and average 0.023 ounces gold, 1.2 ounces silver, and 0.17% copper. At an assumed price of \$150 per ounce for gold and \$5 per ounce for silver the precious metal contained in this material would have a gross value of \$9.45 per ton. Eight hand samples taken during the recent examination representing the same general locus, but with considerable care taken to select only portions of the mineralized zone exhibiting weaker mineralization than in the Platoro samples, average 0.013 ounces gold and 1.14 ounces silver with a value of \$7.65 per ton. A conservative estimate of the quantity of this character of material is in the range of 40,000 tons for each foot of depth, although much more detailed mapping and sampling will be required for confirmation.

Several other loci of mineralization occur to the west and northwest of the area of known mineralization, but only a few of the available assays from these zones contain substantial gold and silver values. Copper sulfides and oxides are seen, but mineralization and geologic features do not suggest a porphyry copper environment. Oxidation appears to be shallow except on a few narrow fracture zones, but most surface samples have been leached of any original copper content. It is possible that the gold-silver mineralization will be accompanied by 0.10 to 0.26% copper as indicated by Platoro samples, and that this copper would add significantly to the value of the ore.

CONCLUSIONS

Preliminary investigation indicates the potential for development of 40,000 tons per vertical foot of gold-silver ore containing between \$7.65 and \$9.45 per ton in gold and silver at a price of \$150 per ounce gold and \$5 per ounce silver. Copper content may be sufficient to increase the gross value of this ore by \$1 or more. If this material can be proven to a depth of 100 feet a total of 4 million tons would be developed which could support a 1000 ton per day open pit operation for about 10 years. Some chance exists for developing much larger tonnages, but this involves high risk and considerable exploration time and expense. A logical first step at the Austerlitz property would be to confirm the suggested 40,000 tons per vertical foot by road building and extensive bulk sampling followed by a minimum amount of drilling for exploration at depth. Such a program would cost about \$26,000 and require three months for completion. If results were favorable a much more extensive drilling program costing in the range of \$75,000 to \$90,000 would be required to prove ore at depth.

This prospect represents a good exploration target for a medium sized, low grade, open pit gold, silver, copper operation that can be tested at relatively low cost.

A handwritten signature in cursive script, appearing to read "J.K. Jones".

J.K. Jones

April 19, 1974

JKJ:td

By: F. E. Gregory

Eagle-Picher D. D. Hole No 27

Drilled June 27, 1935 to July 11, 1936

Near Camphius Shaft - Strike N 89° 45' W.-Dip -70°

0 -36' Soil and Debris
36'6"-37' Quartz stringer- no value
37 -45 Fractured Sidewinder diorite
45 -67 Massive Sidewinder diorite
67'-78'2" Massive diorite with small quartz seams. No value
75'2"-82 Red andesite 8" stringer quartz at 82'- low values
82 -86 Gray type andesite. No value
86 -93 Some vein matter of narrow 1/8" to 1" veins of quartz cutting silicified andesite. Value low, some ZnS-PbS and Cu-Fe. The vein has no true walls at this point. The mineralization has followed a brecciated zone in andesite.
93-99'3" Andesite partly replaced by quartz and carrying narrow stringers of quartz and calcite.
99-137 Sidewinder diorite
137-140'6" Sidewinder type of diorite
140'6"-164'6"- Andesite. Slight mineralization at 146'4". Andesite shattered and decomposed. Some calcite.
164'6"-177 Sidewinder diorite. Well decomposed
177 -179 Andesite and diorite relict structure.
179- 189 Sidewinder diorite
189- 195 Andesite shattered with some calcite and some pyrite.
no values.
195-201 Massive andesite. Bottom of hole

A S S A Y S

86'6" - 87'6"	Gold	NF	- Silver	0.1	Core Recovery	90%
87'6" - 88'6"		T	-	0.1		70%
88'6" - 89'6"		0.06		0.9		70%
89'6" - 90'6"	} 10' Vein	0.10		2.2		60%
90'6" - 91'6"		T		0.8		60%
91'6" - 92'6"		NF		NF		
92'6" - 93'6"		0.015		0.6		
93'6" - 97'0"		0.05		1.4		25%
97'0" - 97'11"		0.08		1.3		25%
97'11" - 99'3"	0.03		1.1		40%	

AUSTERLITZ D.D. HOLE No 1

Location: N 12° W- 12 ft from the north side of the shaft.
NX hole- vertical - Started June 23, 1960 -Completed July 7, 1960.

Depth 155' 6" - Core Recovery 12' to 155' 6" - 97%

0- 12 Set casing to 12'

- 12'- 60' Fine grained, dense volcanic rock with alternating bands of gray to green diorite with large feldspar phenocrysts. A few narrow stringers of quartz.
- 60 - 77 Mostly dense, fine grained volcanic rock. Vertical fracturing. Rock altered along fractures and contained a little pyrite.
- 77 - 91 Dense, fine grained greenish volcanic rock with a few quartz stringers and a little pyrite.
- 91 - 95 Ground broken and altered, numerous narrow quartz stringers. Much pyrite and some chalcopyrite.
- 95 -155'6" Gray to green diorite - probably the same rock termed the Sidewinder diorite at Ruby. This rock has a porphyritic appearance- Contains large altered and kaolinized feldspar crystals in a rather fine grained ground mass. It was very uniform from 95 ft to the bottom of the hole and contained little to no quartz or pyrite except within 2 ft of the contact at 95 ft. It appears that this same rock was cut in EP Hole No 27 at about 90 ft and was unmineralized except at the contact, from this point to the bottom of the hole at 201 ft.

Sample at 91' to 97' was selected core representing the best mineralized section of the hole.

Assays results:	<u>Gold</u>	<u>Silver</u>	<u>Copper</u>
	oz	oz	%

Edwin A. Stone - July, 1960.

AUSTERLITZ D.D. HOLE No 1

Location: N 12° W- 12 ft from the north side of the shaft.
NX hole- vertical - Started June 28, 1960 -Completed July 7, 1960.

Depth 155' 6" - Core Recovery 12' to 155' 6" - 97%

- 0- 12 Set casing to 12'
- 12'- 60' Fine grained, dense volcanic rock with alternating bands of gray to green diorite with large feldspar phenocrysts A few narrow stringers of quartz.
- 60 - 77 Mostly dense, fine grained volcanic rock. Vertical fracturing Rock altered along fractures and contained a little pyrite.
- 77 - 91 Dense, fine grained greenish volcanic rock with a few quartz stringers and a little pyrite.
- 91 - 95 Ground broken and altered, numerous narrow quartz stringers Much pyrite and some chalcopyrite.
- 95 -155'6" Gray to green diorite - probably the same rock termed the Sidewinder diorite at Ruby. This rock has aporphyritic appearance- Contains large altered and kaolinized feldspar crystals in a rather fine grained ground mass. It was very uniform from 95 ft to the bottom of the hole and contained little to no quartz or pyrite except within 2 ft of the contact at 95 ft. It appears that this same rock was cut in EP Hole No 27 at about 90 ft and was unmineralized except at the contact, from this point to the bottom of the hole at 201 ft.

Sample at 91' to 97' was selected core representing the best mineralized section of the hole.

Assays results:	<u>Gold</u>	<u>Silver</u>	<u>Copper</u>
	oz	oz	%

Edwin A. Stone - July, 1960.

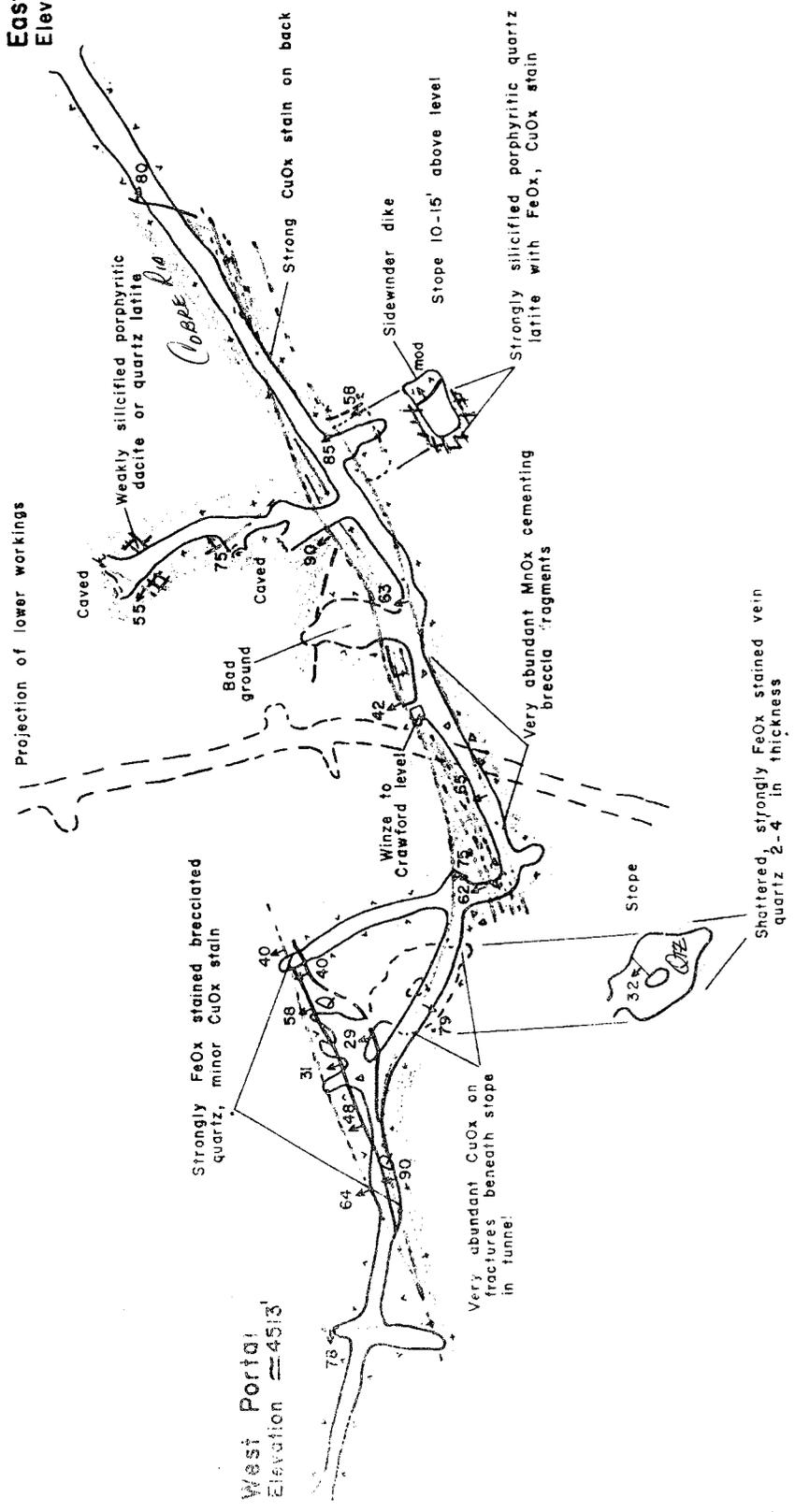
1/2 Sidewinder DM
 0° Oro Blanco S-5-5-1
 0° Oro Blanco Cong
 +4 COKE RIDGE TUFF



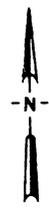
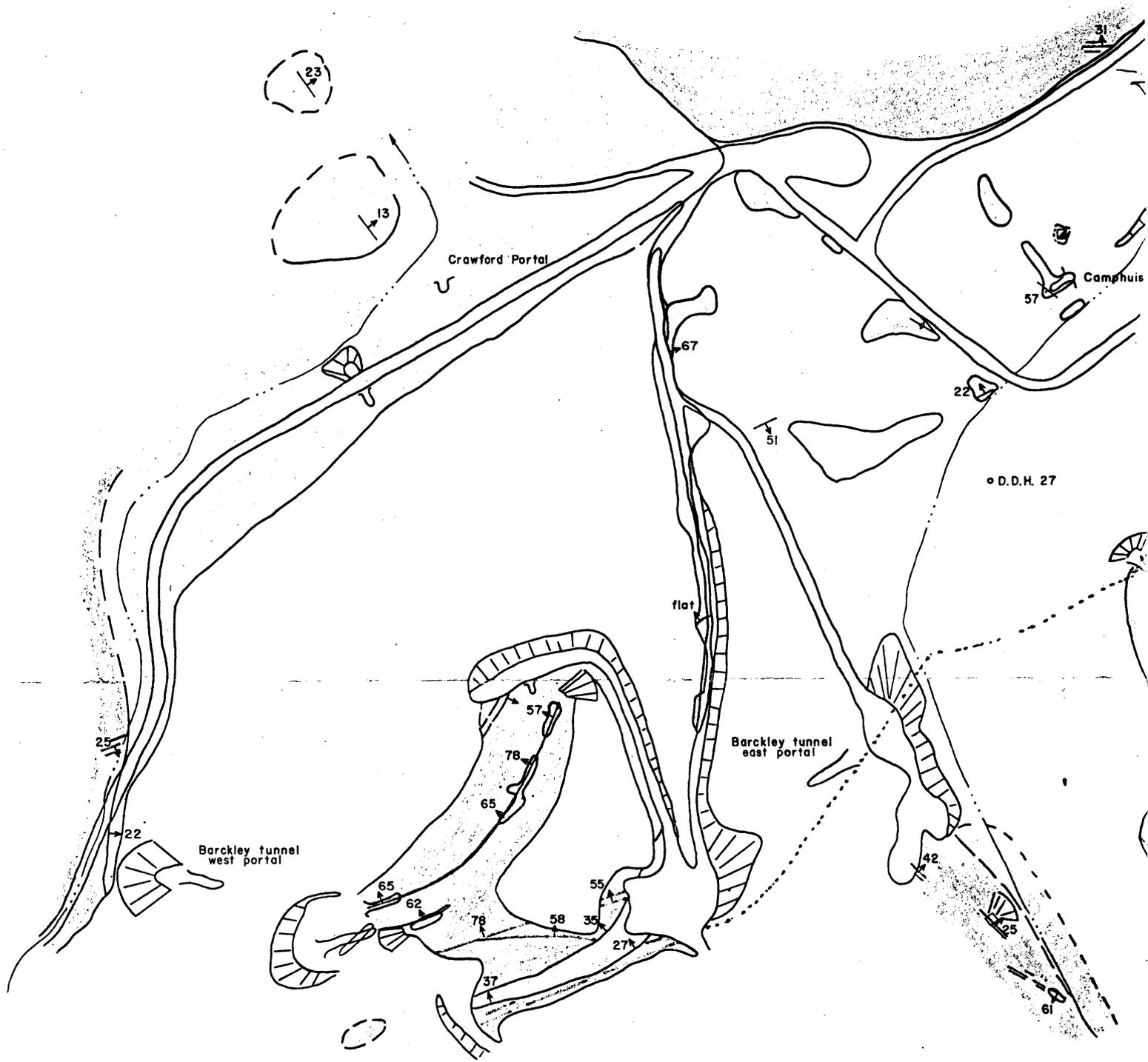
Barckley Tunnel

East Portal
 Elevation $\approx 4506'$

West Portal
 Elevation $\approx 4513'$

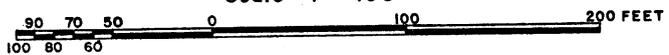


Shattered, strongly FeOx stained vein
 quartz 2-4 in thickness

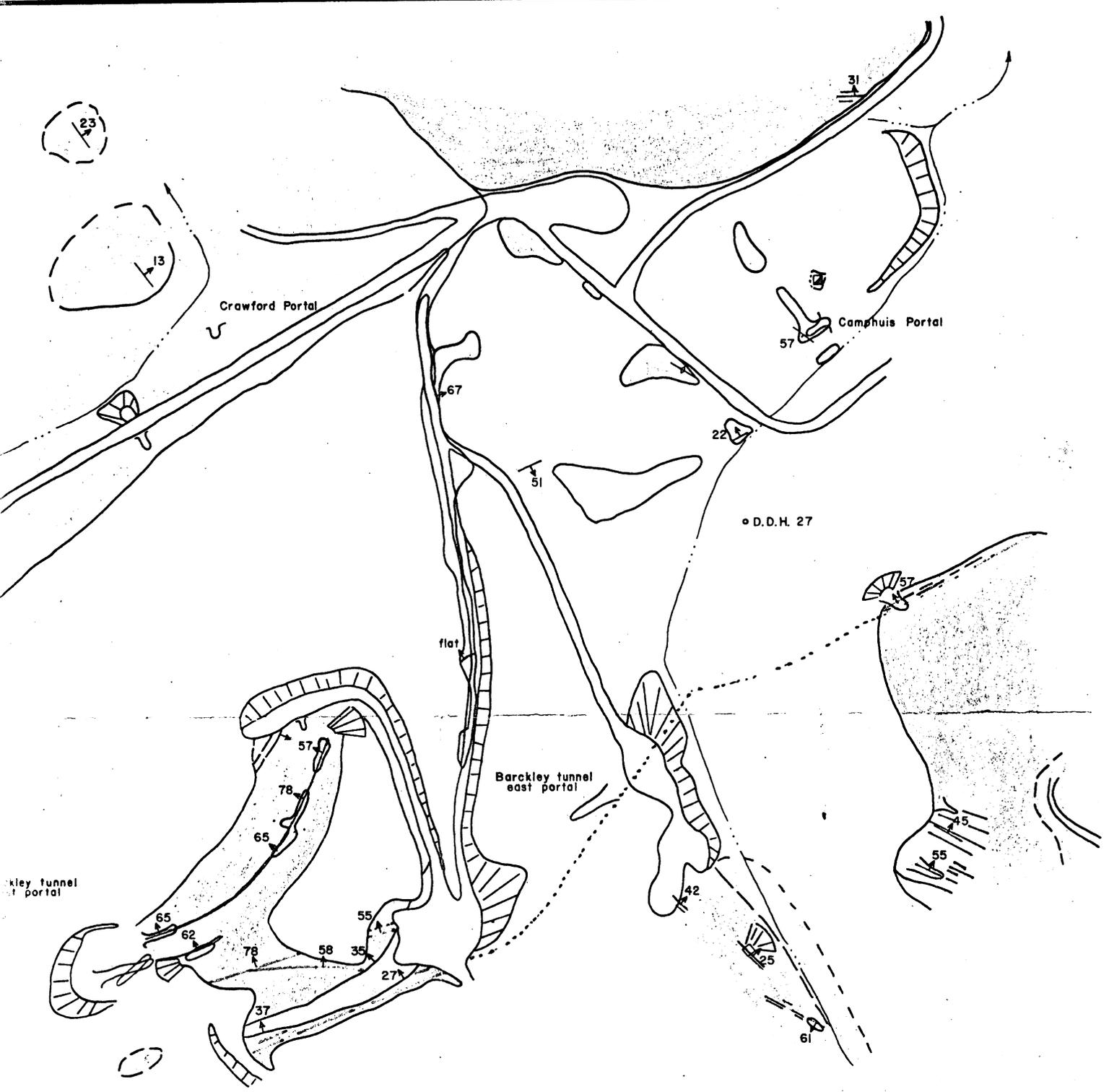


**SURFACE GEOLOGY
AUSTERLITZ MINE**

Scale 1" = 100'

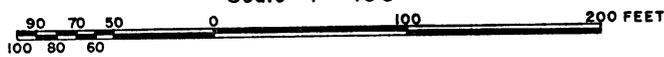


(see figure 19 for legend)



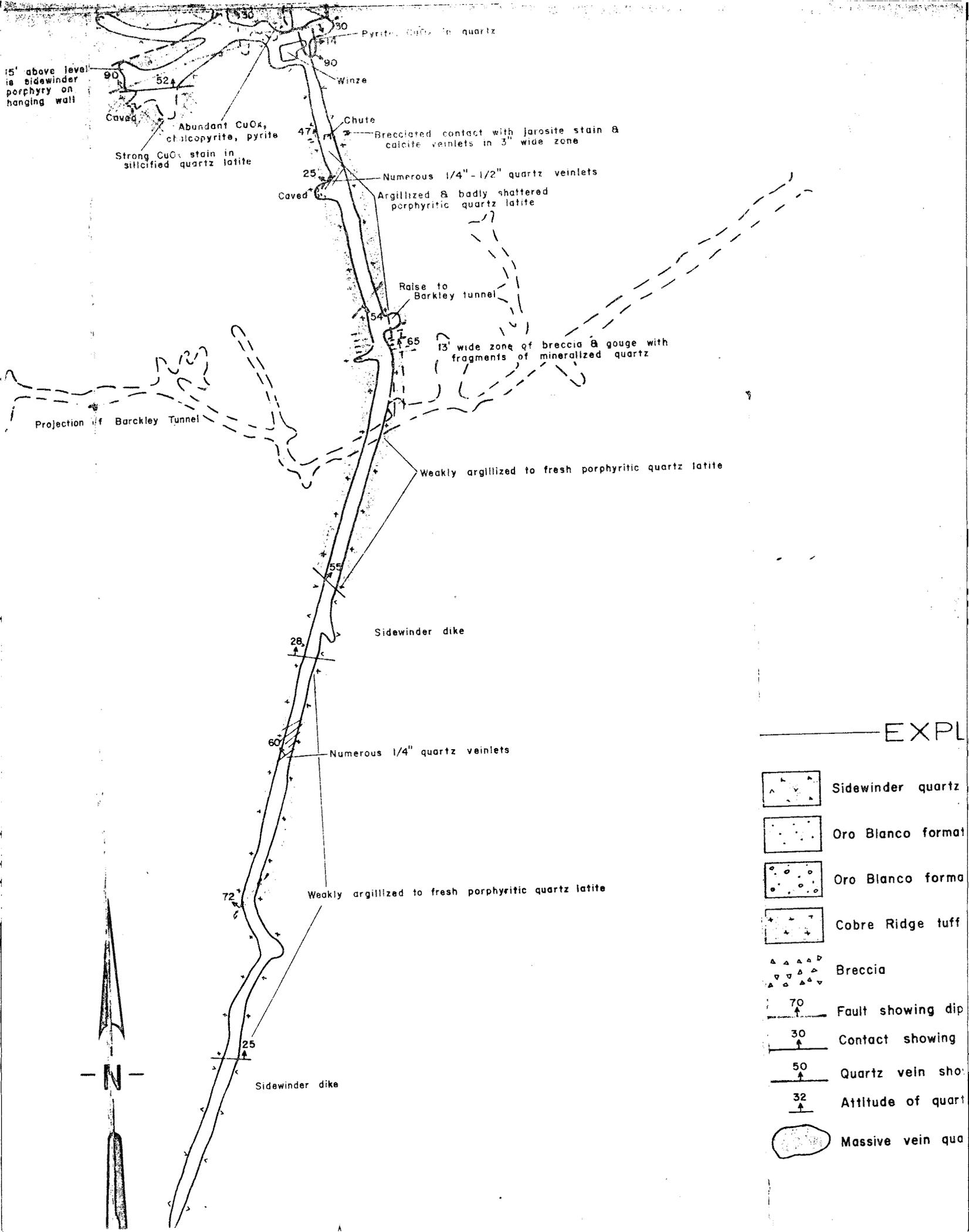
**SURFACE GEOLOGY
AUSTERLITZ MINE**

Scale 1" = 100'

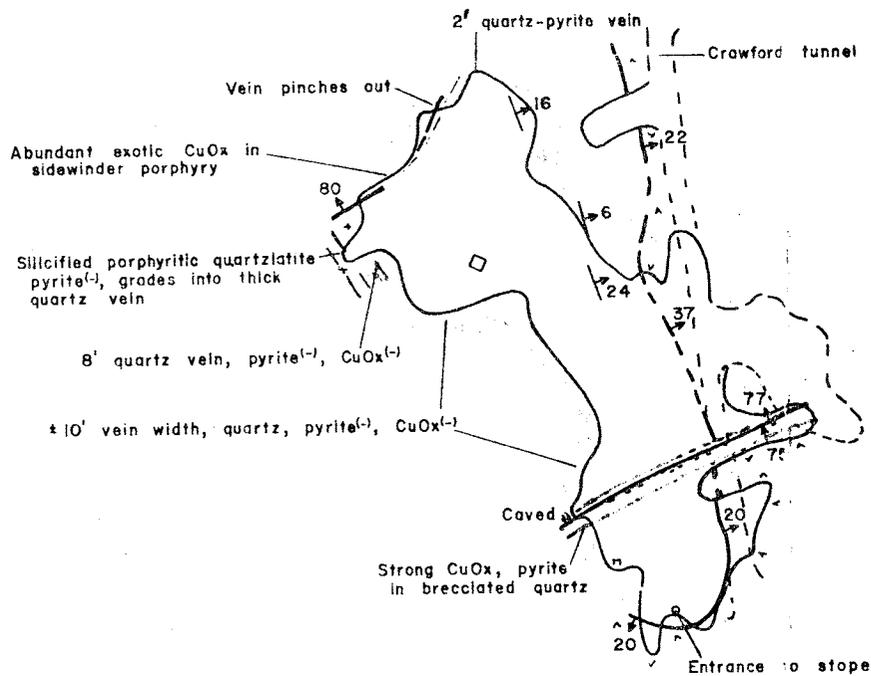


(see figure 19 for legend)

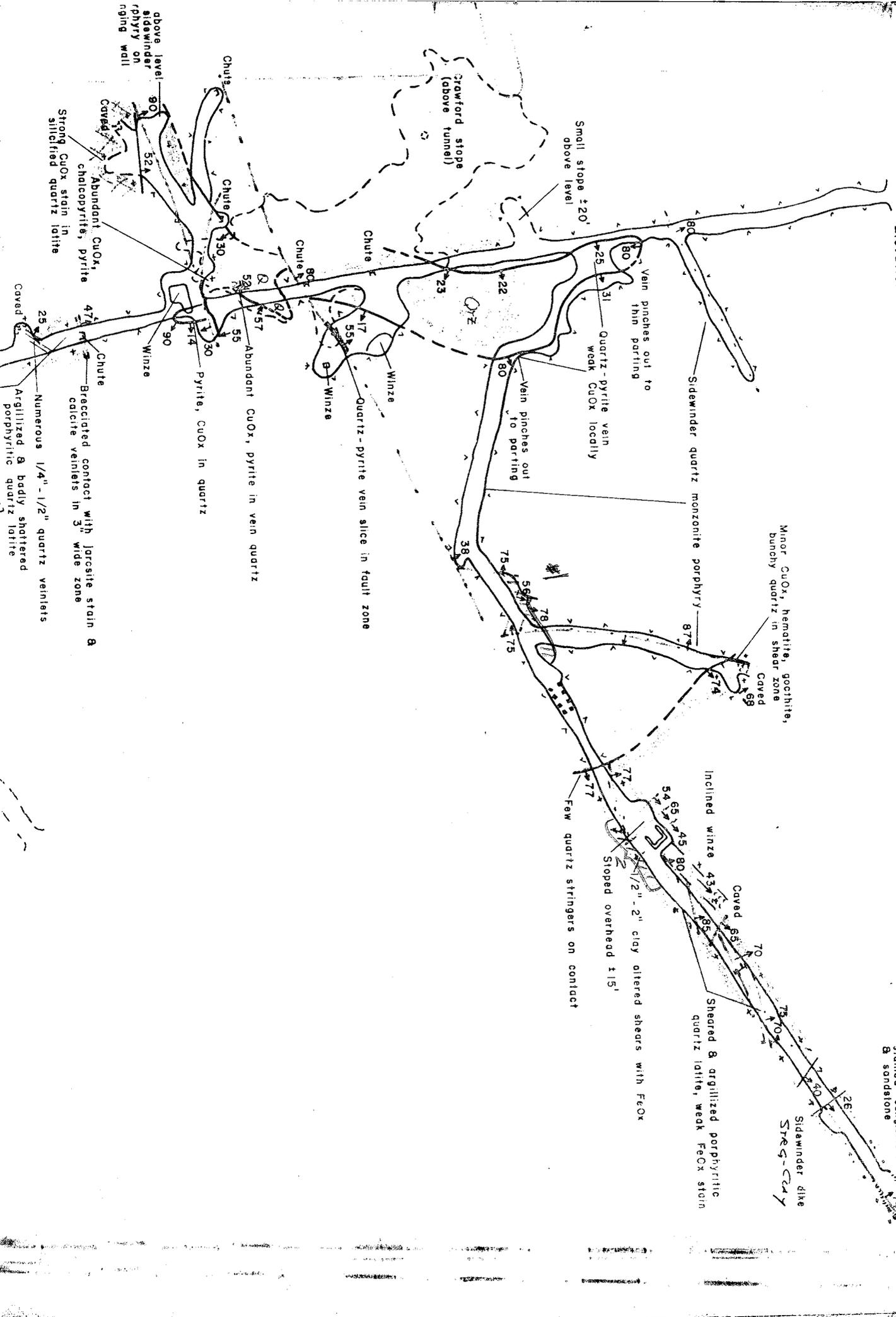
FIGURE 18



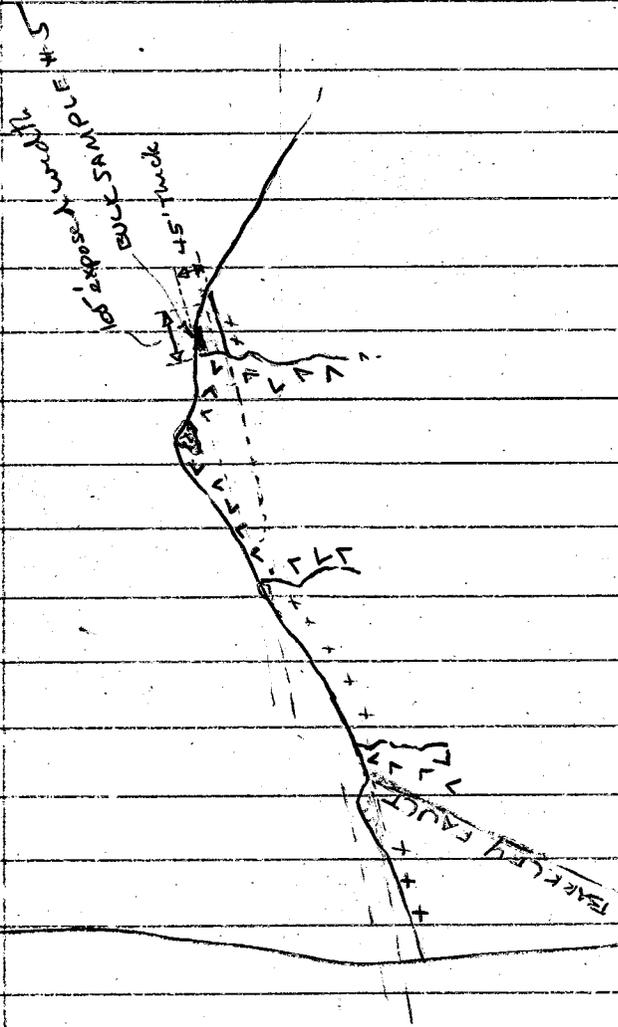
Crawford Stope



Crawford Portal
Elevation $\approx 4426'$



SWITZERLAND ZONE



RAWFORD STOPE



1. SWITZERLAND ORE ZONE

A. 45 ft. Thick x 105 feet wide x 1250 ft. long
 $\div 12.5 = 472,500 \text{ TONS}$

B. If zone were continuous beneath or within porphyry = $45 \times 500 \times 1250 \div 12.5 = 2,250,000 \text{ TONS}$

2. MINERAL POINT ON TERRY CLAIM.

Estimated 300 x 120 x 50 ft. Thick (This is a guess)
 $= 144,000 \text{ TONS}$

3. RAGNAROK

Estimated 150 ft. wide x 40 ft. Thick (?) x 1100 ft long
 $\div 12.5 \text{ cu. ft. per ton} = 528,000 \text{ TONS}$

4. AUSTERLITZ TUNNEL AREA ?



606 25902

AUSTERLITZ.

1. When I had key samples from mineralized zones re-assayed using 3-assay ton basis. The grades came out much lower and appear to be too low grade to be economic. However, a few samples from areas of good looking mineralization (quartz, limonite, sulfide) are pretty good stuff, and I've been testing some of these with good metallurgical results.
2. My objective recently has been to acquire another 20 or 30 or 40 hand samples that would be a good representation of the mineralized zones and have them run by the 3-assay ton method. These are carefully taken 15 or 20 pound ^{chips} samples. When these results are in I think we will have better grounds for a decision.

Would like to have you go ahead with this work. Spend a few days absorbing available data, go thru underground workings, but don't spend weeks mapping and sampling them unless you think it will really affect the potential.

Two weeks from now would like to be at the point where you are sure enough of the geology and enough good hand samples are at the assay office to say if anything real is indicated — or if even a long shot target exists. That is asking quite a bit.

3. There is a report by Webber that lists a bunch of samples that are marked by painted numbers on the ground. Only last digit or two of number painted. These samples are in good places but I suspect the assaying is off and too high at low levels.
4. You should read Knight Thesis at U. of A. to get regional background. Wild ideas? etc.
5. Bottom map drawn on north in map room contains files, maps, etc.

CAR

1. GAS GAUGE & VALVE.

- a) PUSH-PULL BUTTON ON DASH CONTROLS GAUGE ONLY
- b) TANK SWITCH VALVE IS ON FLOOR TO LEFT OF DRIVER. HARD TO REACH. NO POSITIVE STOPS ON LEVER.
- c) MAIN TANK IS BEHIND SEAT AND IT SEEMS TO HAVE TOO MUCH "HEAD" PRESSURE FOR THE CHEAP VALVE. UNTIL THE MAIN TANK IS DOWN TO ABOUT HALF THE AUX TANK USUALLY WILL NOT FEED REGARDLESS OF VALVE SETTINGS.
- d) BOTH TANKS FILL FROM SAME OUTSIDE ORIFICE, BUT YOU HAVE TO INSERT NOZZLE STRAIGHT IN FOR MAIN, SHARPLY POINTED DOWN FOR ⁺AUXILIARY.
- e) IN SPITE OF MANY TRIPS TO SHOP THE AUX TANK LEAKS FROM THE TOP FRONT. DO NOT TOP THIS TANK OFF AT PUMP (OR PARK DOWNHILL WHEN FULL)

2. BED COVER

- a) TOOLS IN RED BOX, ALSO VINYL SIPHON HOSE, ETC.
- b) ~~DO~~ NOT TRAVEL WITH TOP UP UNLESS SPECIAL BRACES INSTALLED
- c) TO OPEN COVER TURN KEY AWAY FROM PUSH PIN AND PULL PIN OUT. DO NOT DRIVE AT HIGH SPEED WITH COVER UNLATCHED.
- d) IN BED ARE CAT, STOVE, LANTERN (IN GRAY BOX)

CAR. - 2 -

WATER ISNT VERY FRESH, FOOD IN OLD ICE CHEST IS GETTING OLD. FIRST AID KIT UNDER PASSENGER SEAT UP FRONT. IN THIS WEATHER IF YOU WANT TO CAMP OUT ~~WE~~ ^{SLEEPING} COULD BUY A VERY CHEAP BAG, STYROFOAM ICE CHEST AND PROBABLY GET BY. MAYBE A BIT WARM FOR CAMPING, THOUGH. SNAKE BITE KIT IN GLOVE COMPARTMENT.

GET THIS BACK FROM PETTY CASH

FORGOT TO PUT IN A POT OR FRYING PAN.

RED DUFFLE BAG CONTAINS A 100FT TAPE, CARBIDE LAMP, CARBIDE. HARD HAT IS IN STORAGE ROOM AT OFFICE.

AMENDED

Notice of Mining Location LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the AUSTERLITZ Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by.....

HORTON E. NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the Fourth day of May, 1959

The length of this claim is Thirteen Hundred Fifty-six feet and I claim Six Hundred feet in a northwesterly direction and 756 feet in a southeasterly direction

from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with Three Hundred feet in width of the surface grounds, on each side of the center of said claim. The

general course of the lode deposit and premises is from the Northwest to the Southeast.

The claim is situated and located in the Oro Blanco Mining District, in Santa Cruz County, in the State of Arizona, about two miles in a northwesterly direction from Ruby, Arizona, and in the SE $\frac{1}{4}$ of Section 36 T22 S, R. 10 E and in the SE $\frac{1}{4}$ of Section 31 T. 22 S. R. 11 E. The northwest end line of the Austerlitz Mining Claim adjoins and coincides with the southeast end line of the Ragnarok Mine U.S. Mineral Survey No. 3283.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at the southeast end center survey monument of the Ragnarok Mine U.S. Mineral Survey No. 3283

at a point in a northwesterly direction 600 feet from the discovery shaft (at which this notice is posted), being in the center of the northwest end line of said claim; thence S 64° 13' W 300 feet to Sur. Cor. No. 1 Ragnarok Mine, being the northwest corner of said claim; thence S 25° 47' E 1356 feet to a stone monument, being at the southwest corner of said claim; thence N 64° 13' E 300 feet to a stone monument at the center of the southeast end of said claim; thence N 64° 13' E 300 feet to a stone monument, being at the southeast corner of said claim; thence N 25° 47' W 1356 feet to Sur. Cor. No. 2 Ragnarok Mine at the northeast corner of said claim; thence S 64° 13' W 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and of the State of Arizona.

This is an amended Location Notice of the AUSTERLITZ Mining Claim, located by ALONZO E. NOON, ARTHUR E. NOON and EDWARD E. NOON on the Third day of December, 1902, and recorded in Book 3 of Record of Mines, at page 451, in the office of the County Recorder of the aforesaid County of Santa Cruz, to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original Location Notice.

Dated and posted on the grounds this Fourth day of May, 1959.

Horton E. Noon

By W. S. Talcott, Agent
W. S. Talcott

#1158- Filed and recorded at request of W. S. Talcott, May 8, A. D., 1959 at 8:35 o'clock A. M.

(SEAL) Mary Bettwy Bachelier, County Recorder.

By..... Deputy Recorder.

AMENDED
Notice of Mining Location
LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the SWITZERLAND Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by HORTON E. NOON

A citizen of the United States
(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States."
the undersigned, on the Fourth day of May, 1959

The length of this claim is Fifteen Hundred feet and I claim One xxx Hundred feet in a northwesterly direction and 1300 feet in a southeasterly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with Three Hundred feet in width of the surface grounds, on each side of the center of said claim. The general course of the lode deposit and premises is from the Northwest to the Southeast

The claim is situated and located in the Oro Blanco Mining District, in Santa Cruz County, in the State of Arizona, about two miles in a northwesterly direction from Ruby, Arizona. The northwest end line of the Switzerland Mining Claim adjoins and coincides with the southeast end line of the Austerlitz Mining Claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at a stone monument, (being the southeast end center monument of the Austerlitz Mining Claim.) at a point in a northwesterly direction, Approx. 200 feet from the discovery shaft (at which this notice is posted), being in the center of the northwest end line of said claim; thence S 64° 13' W 300 feet to a stone monument, being the northwest corner of said claim; thence S 25° 47' E 1500 feet to a stone monument, being at the southwest corner of said claim; thence N 64° 13' E 300 feet to a stone monument at the center of the southeast end of said claim; thence N 64° 13' E 300 feet to a stone monument, being at the southeast corner of said claim; thence N 25° 47' W 1500 feet to a stone monument at the northeast corner of said claim; thence S 64° 13' W 300 feet to the place of beginning.

All done under the provisions of the laws of the United States, and of the State of Arizona.

This is an amended Location Notice of the SWITZERLAND Mining Claim, located by J. S. ANDREWS (Deeded to A.H.Noon Feb.25,1936) on the First day of April, 1900, and recorded in Book 1 of Record of Mines, at page 564, in the office of the County Recorder of the aforesaid County of Santa Cruz, to which reference is hereby made, and this amended Location Notice is made and posted to correct errors in the description in the said original Location Notice _____.

Dated and posted on the grounds this 4th day of May, 1959
Horton E. Noon
By W. S. Talcott, Agent
W. S. Talcott

#1159 Filed and recorded at request of W. S. Talcott, May 8, A. D., 1959
at 8:35 o'clock A. M.

(SEAL) Mary Bettwy Bachelier, County Recorder,
Deputy Recorder.

By
MG

AMENDED

Notice of Mining Location LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the..... ADDITION
Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral de-
posits, was entered upon and located for the purpose of exploration and purchase by.....

HORTON E. NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the..... Fourth..... day of..... May....., 1959.

The length of this claim is..... Fifteen Hundred..... feet and..... I..... claim
One Hundred Thirty..... feet in a..... northwesterly..... direction
and..... 1370..... feet in a..... southeasterly..... direction

from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with.....
Three Hundred..... feet in width of the surface grounds, on each side of the center of said claim. The
general course of the lode deposit and premises is from the..... Northwest..... to the..... Southeast.....

The claim is situated and located in the..... Oro Blanco..... Mining District,
in..... Santa Cruz..... County, in the State of Arizona, about..... two miles..... in a..... northwesterly
direction from..... Ruby, Arizona. The northwest end line of the Addition Mining Claim ad-
joins and coincides with the southeast end line of the Ninety Five (95) Mine U. S.
Mineral Survey No. 3283. The west side of the Addition adjoins the south 230 feet
of the east side line of the Ragnarok Mine and the North 1270 feet of the east side
line of the Austerlitz Mining Claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at.....
the southeast end center survey monument of the Ninety Five (95) Mine U.S.M.S.
No. 3283.....

at a point in a..... northwesterly..... direction..... 130..... feet from
the discovery shaft (at which this notice is posted), being in the center of the..... northwest.....
end line of said claim; thence..... S 38° W 300..... feet to..... Sur. Cor. No. 1 Ninety Five (95)
Mine....., being the..... northwest..... corner of said claim; thence
S 25° 47' E 1500..... feet to a..... stone monument....., being at the
southwest..... corner of said claim; thence..... N 58° E 300..... feet
to a..... stone monument..... at the center of the..... southeast..... end of said claim
thence..... N 38° E 300..... feet to a..... stone monument....., being at
the..... southeast..... corner of said claim; thence..... N 25° 47' W 1500.....
feet to a..... stone monument..... at the..... northeast..... corner of said claim;
thence..... S 38° W 300..... feet to the place of beginning.

All done under the provisions of the laws of the United States, and of the
State of Arizona.

This is an amended Location Notice of the ADDITION Mining Claim, located by ALONZO
E. NOON, ARTHUR H. NOON and EDWARD E. NOON on the Third day of December, 1902, and
recorded in Book 3 of Record of Mines, at page 454, in the office of the County Re-
corder of the aforesaid County of Santa Cruz, to which reference is hereby made,
and this amended Location Notice is made and posted to correct errors in the des-
cription in the said original Location Notice.....

Dated and posted on the grounds this..... Fourth..... day of..... May....., 1959.

Norton E. Noon

By W. S. Talcott, Agent
W. S. Talcott

#1100- Filed and recorded at request of..... W. S. Talcott..... May 8....., A. D., 1959
at..... 8:35..... o'clock..... A. M.

(SEAL)..... Mary Bettwy Bachelier....., County Recorder.

By....., Deputy Recorder.

Notice of Mining Location LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the CENTRAL
Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral de-
posits, was entered upon and located for the purpose of exploration and purchase by.....

HORTON E. NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the Fourth day of May, 1959

The length of this claim is Fifteen Hundred feet and I claim
Two Hundred feet in a southerly direction
and 1300 feet in a northerly direction
from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with.....

Three Hundred feet in width of the surface grounds, on each side of the center of said claim. The
general course of the lode deposit and premises is from the Northwest to the Southeast

The claim is situated and located in the Oro Blanco Mining District,
in Santa Cruz County, in the State of Arizona, about two miles in a northwesterly
direction from Ruby, Arizona. The west side line of the Central Mining Claim adjoins
and coincides with the east side line of the Addition Mining Claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at.....
a stone monument.

at a point in a southerly direction 200 feet from
the discovery shaft (at which this notice is posted), being in the center of the southeast
end line of said claim; thence S 38° W 300 feet to a stone monument
being the southwest corner of said claim; thence
N 25° 47' W 1500 feet to Sur. Cor. No. 2 Nine Five (95) Mine being at the
northwest corner of said claim; thence N 38° E 300 feet
to a stone monument at the center of the northwest end of said claim
thence N 38° E 300 feet to a stone monument, being at
the northeast corner of said claim; thence S 25° 47' W 1500
feet to a stone monument at the southeast corner of said claim;
thence S 38° W 300 feet to the place of beginning.

Dated and posted on the grounds this 4th day of May, 1959

Horton E. Noon

By W. S. Talcott, Agent

W. S. Talcott

#1161 Filed and recorded at request of W. S. Talcott, May 8, A. D., 1959
at 8:35 o'clock A. M.

(SEAL) Mary Bettwy Bachelier, County Recorder.

By....., Deputy Recorder.

MG

Notice of Mining Location LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the TERRY
Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral de-
posits, was entered upon and located for the purpose of exploration and purchase by

HORTON E. NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the Fourth day of May, 1959.

The length of this claim is Fifteen Hundred feet and I claim
Two Hundred feet in a northwesterly direction
and 1300 feet in a southeasterly direction

from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with
Three Hundred feet in width of the surface grounds, on each side of the center of said claim. The
general course of the lode deposit and premises is from the Northwest to the Southeast

The claim is situated and located in the Oro Blanco Mining District,
in Santa Cruz County, in the State of Arizona, about 1 3/4 miles in a northwesterly
direction from Ruby, Ariz. The northwest end line adjoins and coincides with the south-
east end line of the Addition Mining Claim and the west side adjoins the south 86
feet of the east side line of the Austerlitz Mining Claim and the north 1414 feet
of the east side line of the Switzerland Mining Claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at
a stone monument

at a point in a northwesterly direction 200 feet from
the discovery shaft (at which this notice is posted), being in the center of the northwest
end line of said claim; thence S 38° W 300 feet to a stone monument
S 25° 48' E 1500 feet to a stone monument, being at the
southwest corner of said claim; thence N 38° E 300 feet
to a stone monument at the center of the southeast end of said claim
thence N 38° E 300 feet to a stone monument, being at
the southeast corner of said claim; thence N 25° 47' W 1500
feet to a stone monument at the northeast corner of said claim;
thence S 38° W 300 feet to the place of beginning.

Dated and posted on the grounds this 4th day of May, 1959.

Horton E. Noon

By W. S. Walcott, Agent

W. S. Talcott

#1162- Filed and recorded at request of W. S. Talcott, May 8, A. D., 1959
at 8:35 o'clock A. M.

(SEAL) Mary Bettwy Bacheller, County Recorder.

By _____, Deputy Recorder.

Notice of Mining Location LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the JOHN J
Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral de-
posits, was entered upon and located for the purpose of exploration and purchase by.....

HORTON E NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the Fourth day of May, 19 59

The length of this claim is Fifteen Hundred feet and I claim
Two Hundred feet in a northwesterly direction
and 1300 feet in a southeasterly direction
from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with.....

Three Hundred feet in width of the surface grounds, on each side of the center of said claim. The
general course of the lode deposit and premises is from the Northwest to the Southeast

The claim is situated and located in the Oro Blanco Mining District,
in Santa Cruz County, in the State of Arizona, about 1 1/2 miles in a northwesterly
direction from Ruby, Arizona. The northwest end line of the John J adjoins and coincides
with the southeast end line of the Central Mining Claim and the west side line
adjoins and coincides with the east side line of the Terry Mining Claim

The surface boundaries of the claim are marked upon the ground as follows: Beginning at.....
stone monument

at a point in a northwesterly direction 200 feet from
the discovery shaft (at which this notice is posted), being in the center of the northwest
end line of said claim; thence S 38° W 300 feet to a stone monument
being the northwest corner of said claim; thence
S 25° 47' E 1500 feet to a stone monument, being at the
southwest corner of said claim; thence N 38° E 300 feet
to a stone monument at the center of the southeast end of said claim
thence N 38° E 300 feet to a stone monument, being at
the southeast corner of said claim; thence N 25° 47' W 1500
feet to a stone monument at the northeast corner of said claim;
thence S 38° W 300 feet to the place of beginning.

Dated and posted on the grounds this 4th day of May, 19 59

Horton E. Noon

By W. S. Talcott, Agent

W. S. Talcott

#1163 Filed and recorded at request of W. S. Talcott, May 8, A. D., 1959
at 8:35 o'clock A.M.

(SEAL) Mary Bettwy Bacheller, County Recorder.

By....., Deputy Recorder.

C.K.
MG

Notice of Mining Location LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the GILROY
Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by.....

HORTON E. NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the Fourth day of May, 1959.

The length of this claim is Fifteen Hundred feet and I claim
Two Hundred feet in a southwesterly direction
and 1500 feet in a northeasterly direction
from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with
Three Hundred feet in width of the surface grounds, on each side of the center of said claim. The
general course of the lode deposit and premises is from the Southwest to the Northeast.

The claim is situated and located in the Oro Blanco Mining District,
in Santa Cruz County, in the State of Arizona, about 1 1/2 miles in a westerly
direction from Ruby, Ariz. The southwest end line of the Gilroy Mining Claim adjoins
the south 86 feet of the east side line of the Switzerland Mining Claim and the
northwest side line adjoins the southeast end lines of the Terry and John J
Mining Claims.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at
a stone monument

at a point in a southwesterly direction 200 feet from
the discovery shaft (at which this notice is posted), being in the center of the southwest
end line of said claim; thence N 25° 47' W 300 feet to a stone monument
being the west corner of said claim; thence
N 38° E 1500 feet to a stone monument, being at the
north corner of said claim; thence S 25° 47' E 300 feet
to a stone monument at the center of the northeast end of said claim
thence S 25° 47' E 300 feet to a stone monument, being at
the east corner of said claim; thence S 38° W 1500
feet to a stone monument at the south corner of said claim;
thence N 25° 47' W 300 feet to the place of beginning.

Dated and posted on the grounds this 4th day of May, 1959.

Horton E. Noon

By W. S. Talcott, Agent
W. S. Talcott

#1164- Filed and recorded at request of W. S. Talcott, May 8, A. D., 1959
at 8:35 o'clock A. M.

(SEAL) Mary Bettwy Bachelier, County Recorder.

By _____, Deputy Recorder.

Notice of Mining Location
LODE CLAIM

To All Whom It May Concern:

This Mining Claim, the name of which is the.....KIMBERLY.....
Mining Claim, situate on lands belonging to the United States of America, and in which there are valuable mineral de-
posits, was entered upon and located for the purpose of exploration and purchase by.....

HORTON E. NOON

A citizen of the United States

(Locator must insert either "A citizen of the United States" or "Who has declared his intention of becoming a citizen of the United States.")

the undersigned, on the.....Twenty-sixth.....day of.....April....., 19.....59

The length of this claim is.....Fifteen Hundred.....feet and.....1.....claim
.....Four Hundred Ten.....feet in a.....northwesterly.....direction
and.....1090.....feet in a.....southeasterly.....direction
from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim, together with.....

.....Three Hundred.....feet in width of the surface grounds, on each side of the center of said claim. The
general course of the lode deposit and premises is from the.....Northwest.....to the.....Southeast

The claim is situated and located in the.....Oro Blanco.....Mining District,
in.....Santa Cruz.....County, in the State of Arizona, about.....2 1/2.....miles.....in a.....northwesterly.....
direction from.....Ruby, Arizona. The north 1356 feet of the east side line of the Kimberly
Mining Claim adjoins and coincides with the west side line of the Austerlitz Mining
Claim and the south 144 feet of the east side line of the Kimberly adjoins the north
144 feet of the West side line of the Switzerland Mining Claim.

The surface boundaries of the claim are marked upon the ground as follows: Beginning at.....
.....a stone monument

at a point in a.....northerly.....direction.....410.....feet from
the discovery shaft (at which this notice is posted), being in the center of the.....northwest.....
end line of said claim; thence.....N 64° 13' E 300.....feet to a.....S. U. R. Co. No. 1 Reservoir Mine 1818
No. 3283.....being the.....northeast.....corner of said claim; thence
.....S 25° 47' E 1500.....feet to a.....stone monument.....being at the
.....southeast.....corner of said claim; thence.....S 64° 13' W 300.....feet
to a.....stone monument.....at the center of the.....southeast.....end of said claim
thence.....S 64° 13' W 300.....feet to a.....stone monument.....being at
the.....southwest.....corner of said claim; thence.....N 25° 27' W 1500
feet to a.....stone monument.....at the.....northwest.....corner of said claim;
thence.....N 64° 13' 300.....feet to the place of beginning.

Dated and posted on the grounds this.....26th.....day of.....April....., 19.....59

Horton E. Noon

By W. S. Talcott, Agent

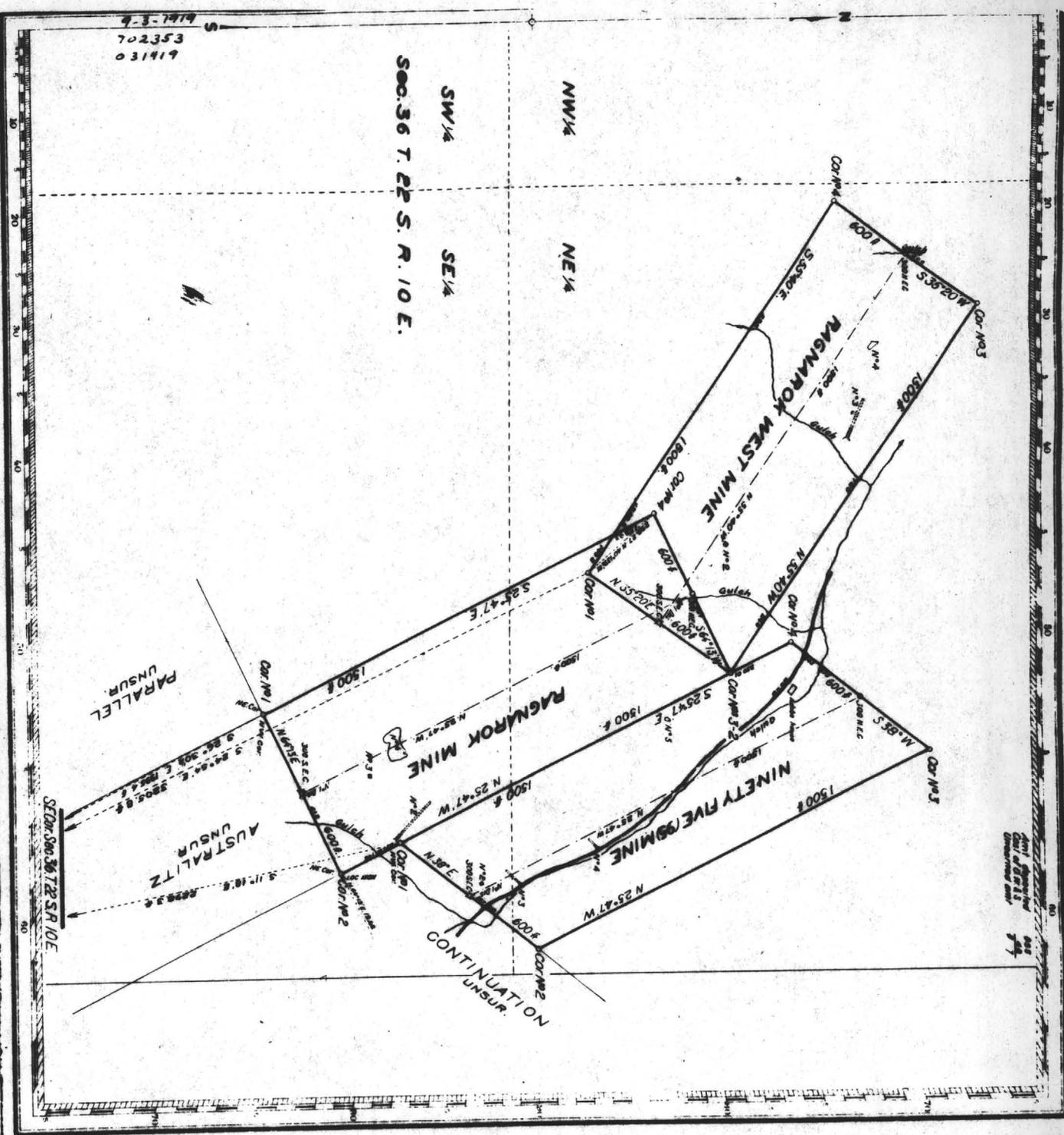
W. S. Talcott

#1165 Filed and recorded at request of.....W. S. Talcott,.....May 8....., A. D., 1959
at.....8:35.....o'clock.....A.....M.

(SEAL).....Mary Bettwy Bachelier....., County Recorder.

By....., Deputy Recorder.

MG



9-3-1919
702353
031919

SEC. 36 T. 22 S. R. 10 E.

NW 1/4
SW 1/4
SE 1/4
NE 1/4

PARALLEL
UNSUR

AUSTRALITZ
UNSUR

CONTINUATION
UNSUR

See also
Plat 5285

Revised, Ragnarok Mine Jan 1, 1892; Ragnarok
West Mine Jan 1, 1892; Ninety Five (95) Mine Jan 1, 1895
Mineral Survey No. 3285

Lot No. 1
ARIZONA
PLAT
OF THE CLAIM OF
George T. Ballouchey
KNOWN AS THE

**RAGNAROK WEST MINE AND
NINETY-FIVE (95) MINE LODES**
MINING, INST. T.
Oro Blanco
Santa Cruz COUNTY, ARIZONA

including an area of _____ Acres
Scale of _____ Feet to the inch.

Surveyed by _____
Witnessed by _____
Date _____

Witnessed by _____
George T. Ballouchey

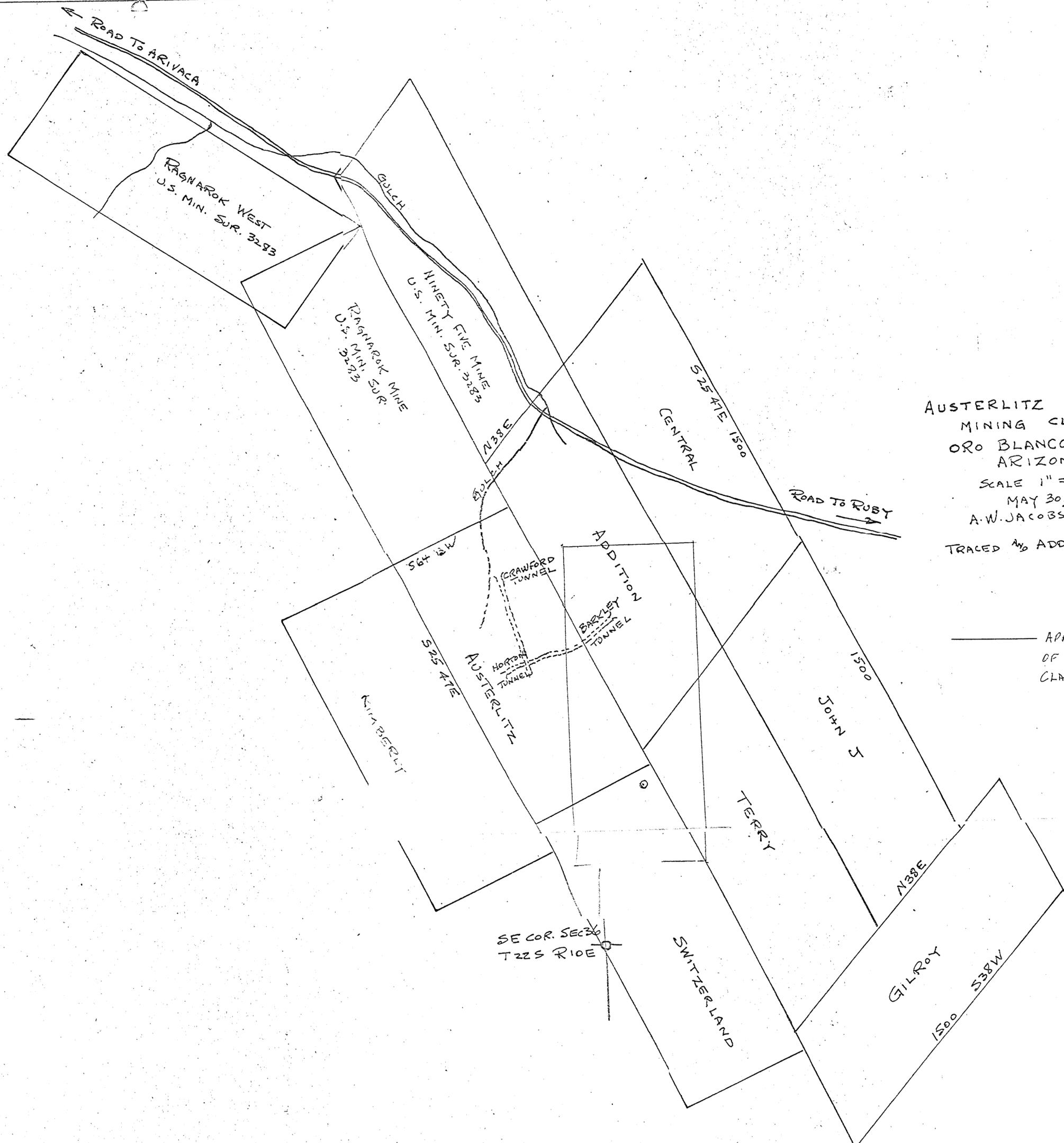
Witnessed by _____
Ragnarok Mine, Ragnarok West Mine
and Ninety Five (95) Mine lodes

From which this plat has been made under my direction,
I have examined and approved, and am on file in this Office,
and I hereby certify that they furnish such an accurate descrip-
tion of said Mining Claim as will, if surveyed, result in a plat
correctly identifying the premises, and that such reference to
said lodes, to natural objects or permanent measurements as
will perpetuate said plat for the locus thereof.
I further certify that the flow boundary of labor has
been expanded or improvements made upon said Mining Claim
by claimant or his grantors and that
said improvements consist of 1 tank, 4 sluices, 3 shafts and
1 cross-cut.
Total value \$1520

that the location of said improvements is correctly shown
upon this plat, and that no portion of said labor or improve-
ments has been included in the estimate of expenditures
upon any other claim.
And I further certify that this is a correct plat of said Mining
Claim made in conformity with said original field notes of the
survey thereof, and the same is hereby approved.

U.S. Surveyor General for
Phoenix, Arizona
October 5, 1896
Arizona

Patented Claims
11-5901



AUSTERLITZ GROUP
 MINING CLAIMS
 ORO BLANCO DISTRICT
 ARIZONA
 SCALE 1" = 300'
 MAY 30, 1963
 A.W. JACOBS
 TRACED AND ADDITIONS
 D.M. STRANAHAN

——— APPROX BOUNDARIES
 OF HAGERTY OVERSTAKED
 CLAIM TRIPLEX #54

Affidavit of Labor Performed and Improvements Made

DOCK 147 PAGE 386

STATE OF ARIZONA, }
County of Pima } ss.

Charles Hagerty being duly sworn, deposes and says that he is a citizen of the United States and more than twenty-one years of age, and resides at Arivaca in Pima County, State of Arizona, and is personally acquainted with the mining claims known as the herein described - as

Listed below of
mining claims situate in the Oro Blanco and Ruby

Mining District, County of Santa Cruz, State of Arizona, the location notices of which are recorded in the office of the County Recorder of said County, in Books as listed below of Records of Mines, at pages see list below; that between the 2nd day of September, A. D. 1971, and the 31st day of August, A. D. 1972, at least (3,600.00)

thirty six hundred dollars worth of work and improvements were done and performed upon said claims not including the location work of said claims. Such work and improvements were made by and at the expense of Charles Hagerty

owner of said claims for the purpose of complying with the laws of the United States pertaining to assessment of annual work, and R. Bissell, H. Gregore, M. MacAlrath, M. Stevens, F. Harlan and Charles Hagerty

were the men employed by said owner and who labored upon said claims, did said work and improvements, the same being as follows, to-wit: Grading road ways, filling in eroded sections, trimming trees on right of way, drilling, mucking tunnels, rebuilding & painting monuments, with continuing year-around maintenance ensuring to the benefit of the described group of mining claims. Machinery, tools, fuel and other equipment furnished by Charles Hagerty.

Name of mine	DCKT	Page	Name of mine	DCKT	Page	Name of mine	DCKT	Page
Chico's	45	18	Triple H No 7	048	375	Triple H No 5	048	375
Chico's Ruby Franc	055	300	"	"	30	"	"	59
"	"	301	"	"	31	"	"	60
Ruby Silver Adx	055	302	"	"	51	"	"	61
Silver Shadow	50	127	"	"	52	"	"	62
King Binge	59	510	"	"	53	"	"	36
"	"	511	"	"	54	"	"	37
"	"	512	"	"	64	"	"	40
Triple H No 1	048	343	"	"	67	"	"	41
"	"	344	"	"	55	"	"	42
"	"	453	"	"	56	"	"	43
"	"	454	"	"	57	"	"	44

Subscribed and sworn to before me this 7th day of September, A. D. 1972

(My commission expires.....)

Charles Hagerty
Notary Public

Form No. 21—AFFIDAVIT OF LABOR PERFORMED AND IMPROVEMENTS MADE
A. P. Line Legal Blanks—Phoenix, Arizona

STATE OF ARIZONA, County of Santa Cruz — SS.

I do hereby certify that the within instrument was filed and recorded at the request of Charles H. Hagerty on SEP 7 1972 A. D., 1972 at 5:02 o'clock P. M. Docket No. 147 Page 386
Records of Santa Cruz County, Arizona.

WITNESS my hand and official seal the day and year first above written.

G. ESPINOSA MORENO, COUNTY RECORDER

By G. Espinosa Moreno

Notary

FEE NO. 19820

Affidavit of Labor Performed and Improvements Made

DOCK 147 PAGE 387

STATE OF ARIZONA, }
County of Pima } ss.

Charles Hagerty being duly sworn, deposes and says that he is a citizen of the United States and more than twenty-one years of age, and resides at P.O. Box 40 Arivaca Pima County, State of Arizona, and is personally acquainted with the mining claims known as the herein described as listed below of mining claims, situate in the Oro Blanco

Mining District, County of Santa Cruz, State of Arizona, the location notices of which are recorded in the office of the County Recorder of said County, in Books as listed below of Records of Mines, at pages see list below; that between the 2nd day of September A. D. 1971, and the 31st day of August A. D. 1972, at least (1,400.00)

fourteen hundred dollars worth of work and improvements were done and performed upon said claims, not including the location work of said claims. Such work and improvements were made by and at the expense of Charles Hagerty owner of said claims for the purpose of complying with the laws of the United States pertaining to assessment of annual work, and R. Bissell, H. Grego, M. MacAraith, M. Stevens, F. Harlan and Charles Hagerty

were the men employed by said owner and who labored upon said claims, did said work and improvements, the same being as follows, to-wit: Grading roadways, filling in eroded sections, trimming trees on right of way, drilling, mucking tunnels, rebuilding monuments, with continuing year-around maintenance accruing to the benefit of the described group of mining claims. Machinery, tools, fuel and other equipment furnished by Charles Hagerty.

Name of Mine	Dckt	Page	Name of Mine	Dckt	Page	Name of Mine	Dckt	Page
Triple H No 45	049	22	Whale No 1	103	645	Copper Wedge	119	324
" " " 46	049	23	" No 2	30	257	Copper Chick	119	325
" " " 47	048	552	Alaska No 1	113	438	Lonesome	045	242
" " " 48	048	553	Plata Copper Tackpot	066	573			
Purple Star	119	69	" " " No 2	066	573			
Buena Vista	119	68						

Subscribed and sworn to before me this 7th day of Sept, A. D. 1972

(My commission expires _____) Charles Hagerty
Notary Public

Form No. 21—AFFIDAVIT OF LABOR PERFORMED AND IMPROVEMENTS MADE
A. P. Line Legal Blanks—Phoenix, Arizona

STATE OF ARIZONA, County of Santa Cruz -- SS.

I do hereby certify that the within instrument was filed and recorded at the request of Charles H Hagerty on SEP 7 1972 A. D. 1972 at 3:03 o'clock P. M. Docket No. 147 Page 387

Records of Santa Cruz County, Arizona.

WITNESS my hand and official seal the day and year first above written.
G. ESPINOSA MORENO, COUNTY RECORDER

By G. Espinosa Moreno
Deputy

FEE NO. 19821

March 23, 1964

Mr. D. M. Stranahan
P. O. Box 4507
Tucson, Arizona

Dear Dan:

Re: Austerlitz Mine

The day I prepared notices to the locators of the triple H #54 claim (Hagerty, Harford and Henning) I talked with you on the phone and you mentioned that Mr. Noon had intended to go see these locators. Will you please let me know what Mr. Noon found out and whether or not he took steps to obtain from them a relinquishment or a quitclaim deed of the triple H #54 claim. After I hear from you I'll do whatever may be necessary. It would be desirable, of course, if Mr. Noon would take care of this but if he does, we want to see the document which he obtained and also to make sure that it is recorded.

Very truly yours,

Victor H. Verity

MINING LOCATION

This mining claim, the name of which is the triple H #54 a relocation of the High Wide and Handsome mining claim, situate on land belonging to the U. S. A., and in which there are valuable mineral deposits, was entered upon and located for the purpose of exploration and purchase by

Charles Hagerty

Harvey Henning

Geo. Harford

*6 work done
on 26 claims
in 92*

citizens of U. S. A., the undersigned on sixth day of November 1963.

The length of this claim 1500 feet and we claim 1100 feet in a northerly direction and 400 feet in a southerly direction from the center of the discovery shaft, at which this notice is posted, lengthwise of the claim together with 300 feet in width of the surface grounds on each side of the center of said claim. The general course of the lode deposit and premises is from the northerly to the southerly direction.

The claim is situated and located in the Oro Blanco Mining dist. in S. Cruz county Arizona about $\frac{1}{4}$ mile in a southerly direction from Ruby Road and joining the old R. N. F. A. #2 claim (now known as triple H #55 mining claim) on its northwest corners, also this monument is about 800 feet from Geological Survey in an Easterly direction T22 - 23SR 11E.

*In 1972 1, 2, 3, 4, 7 30, 31
51*

The surface boundaries of the claim are marked upon the ground as follows beginning at the location monument at a point in a northerly direction 1100 feet from the discovery shaft (at which this notice is posted) being in the center of the north end line of said claim thence 300 feet to a monument to a monument being at Northeast corner of said claim; then 1500 feet to a monument being at the Southeast corner of said claim; thence 300 feet to a monument at the center of the South end of this claim; then 300 feet to a monument being at the Southwest corner of said claim; thence 1500 feet to a monument at the northwest corner of said claim; thence 300 feet to the place of beginning.

Dated and posted this 6th day of November 1963

Witness on demand

Charles Hagerty

Harvey Henning

George Harford

4122 NORTH 56TH STREET
PHOENIX, ARIZONA

March 2, 1964.

"I three IV"

no work
recorded

Mr. V. H. Verity,
902 Phoenix Title Building,
Tucson, Arizona.

KEVIN IV
Created by Richard Johnson
Sept 2, 1969

Dear Vic:-

Enclosed is a copy of a location notice dated November 6, 1963 found on the ground covered by part of the unpatented claims of the Austerlitz group. Also enclosed is a claim map which gives the approximate location of this overstaked claim. Apparently there may be other overstaked claims but I did not bother to search out the monuments. Incidentally, the discovery shaft referred to is an inclined shaft put down many years ago.

ARIVACA

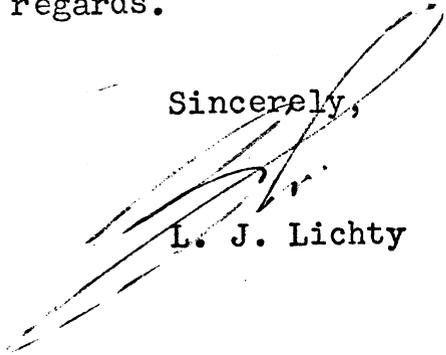
Messrs. Hagerty and Harford receive their mail at Arwaea post office but Mr. Henning apparently lives in Tucson.

I brought this overstaking to the attention of Horton Noon and have given him a copy of the claim map similar to the one enclosed. We think it might be a good idea if you sent Hagerty and Harford registered letters drawing this overstaking of valid claims to their attention and, if you think it wise, to send them the enclosed claim map.

If you agree, please send Horton Noon a copy of your letter to the gentlemen.

With kindest regards.

Sincerely,


L. J. Lichty

c.c. D.M.S.

VICTOR H. VERITY
ATTORNEY AT LAW
SUITE 902 PHOENIX TITLE BUILDING
CHURCH AT ALAMEDA
TUCSON, ARIZONA

AREA CODE 602
TELEPHONE 622-7446

March 17, 1964

Mr. Charles Hagerty
General Delivery
Arivaca, Arizona

Dear Mr. Hagerty:

I am attorney for Platoro Corporation, lessee from Mr. and Mrs. Horton E. Noon of certain patented and un-patented mining claims in the Oro Blanco Mining District, Santa Cruz County, Arizona.

Representatives of Platoro Corporation have found on the property under lease a location notice dated November 6, 1963 for the triple H #54 mining claim, a copy of which is attached. As nearly as can be ascertained from the location notice, the triple H #54 mining claim covers parts of the Austerlitz, Switzerland, Terry, Addition and Central lode mining claims, property of Mr. and Mrs. Horton E. Noon and leased to Platoro Corporation. The Noon claims are old locations which have been in full force and effect for many years and on which Platoro Corporation has spent a considerable amount of time and money in exploration work.

We assume the triple H #54 was inadvertently located and that it was not the intent of the locators to claim adversely to the prior locators. I have therefore prepared a quitclaim deed to Horton E. Noon of the right, title and interest of the three locators in and to the triple H #54 claim and will appreciate it if you and your associates Messrs. Henning and Harford will execute the enclosed deed, have your signatures acknowledged before a notary public and return to me in the enclosed stamped, self-addressed envelope.

Very truly yours,

Encls.

Victor H. Verity

Registered mail
Return receipt requested

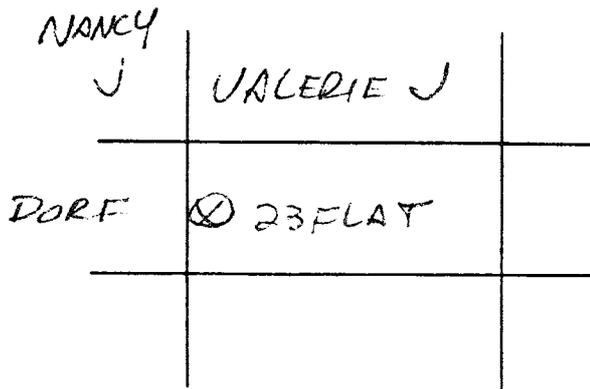
cc-Messrs. Harvey Henning, George Harford, Horton E. Noon,
L. J. Lichty, D. M. Stranahan

C
O
P
Y

ARIZONA
NOTICE OF LOCATION
(LODE)

NOTICE IS HEREBY GIVEN that the 23 FLAT lode mining claim was located by ESSEX INTERNATIONAL, INC on April 6, 1974. This claim is 1,500 feet in length along the vein or deposit of mineral-bearing rock in place and 300 feet in width on each side of the middle of said vein or deposit at which this notice is posted. The general course of this claim is NW-SE and is situated in the ORO BLANCO Mining District, SANTACRUZ County, Arizona. This claim runs from the location monument or stake on which the notice is posted 50 feet in a NW direction to the north center end monument or stake and 1450 feet in a SE direction from the location monument or stake to the south center end monument or stake, and is also marked by two corner monuments or stakes at each end of the claim in the form of a parallelogram. This claim, one and part of a contiguous group called _____ thru _____ and is located approximately in SW part of Section 36 Township 22S, Range 10E, Gila and Salt River Basin and Meridian, or _____ in a _____ direction from _____ (feet or miles)

SANTACRUZ County, Arizona.
(some prominent or permanent reference or monument)



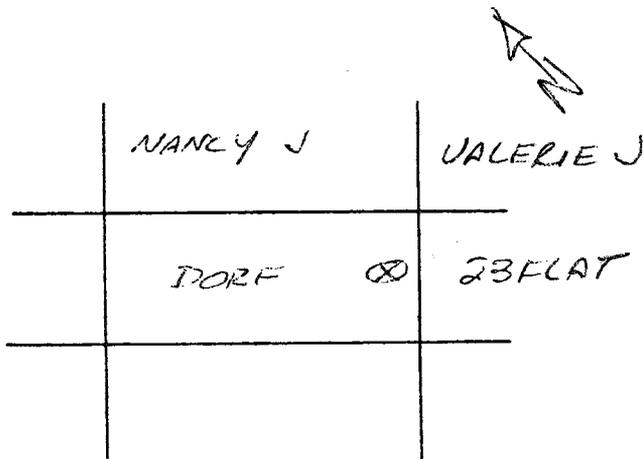
ESSEX INTERNATIONAL, INC.
by John Kenneth Jones, AGENT
Locator
Harold A. Jones WITNESS

ARIZONA
NOTICE OF LOCATION
(LODE)

NOTICE IS HEREBY GIVEN that the DORF lode mining claim was located by ESSEX INTERNATIONAL, INC. on APRIL 6, 1974. This claim is 1,500 feet in length along the vein or deposit of mineral-bearing rock in place and 300 feet in width on each side of the middle of said vein or deposit at which this notice is posted. The general course of this claim is NW-SE and is situated in the ~~SE~~ ORO BLANCO Mining District, SANTA CRUZ County, Arizona. This claim runs from the location monument or stake on which the notice is posted 50 feet in a SE direction to the south center end monument or stake and 1450 feet in a NW direction from the location monument or stake to the north center end monument or stake, and is also marked by two corner monuments or stakes at each end of the claim in the form of a parallelogram. This claim, one and part of a contiguous group called _____ thru _____ and is located approximately in SW part of Section 36 Township 22S, Range 10E, Gila and Salt River Basin and Meridian, or _____ in a _____ direction from _____
(feet or miles)

SANTA CRUZ County, Arizona.

(some prominent or permanent reference or monument)



ESSEX INTERNATIONAL, INC.

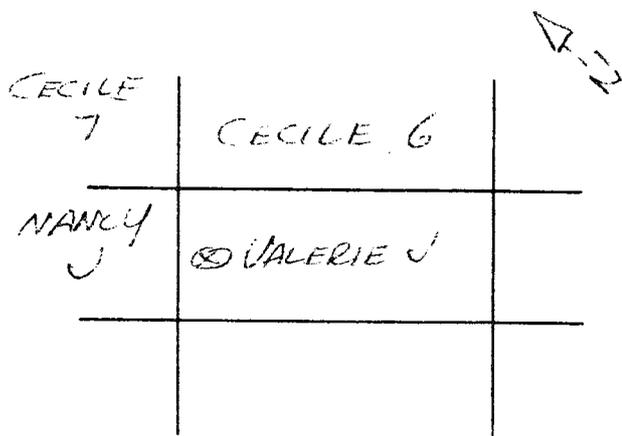
by: John Kennedy Jones, AGENT
Locator

Dorothy A. Jones WITNESS

ARIZONA
NOTICE OF LOCATION
(LODE)

NOTICE IS HEREBY GIVEN that the VALERIE J lode mining claim was located by ESSEX INTERNATIONAL, INC on APRIL 6, 1974. This claim is 1,500 feet in length along the vein or deposit of mineral-bearing rock in place and 300 feet in width on each side of the middle of said vein or deposit at which this notice is posted. The general course of this claim is NW-SE and is situated in the OROBLANCO Mining District, SANTA CRUZ County, Arizona. This claim runs from the location monument or stake on which the notice is posted 60 feet in a NW direction to the north center end monument or stake and 1440 feet in a SE direction from the location monument or stake to the south center end monument or stake, and is also marked by two corner monuments at each end of the claim in the form of a parallelogram. This claim, one and part of a contiguous group called _____ thru _____ and is located approximately in SW part of Section 36 Township 22 S, Range 10 E, Gila and Salt River Basin and Meridian, or _____ in a _____ direction from _____ (feet or miles)

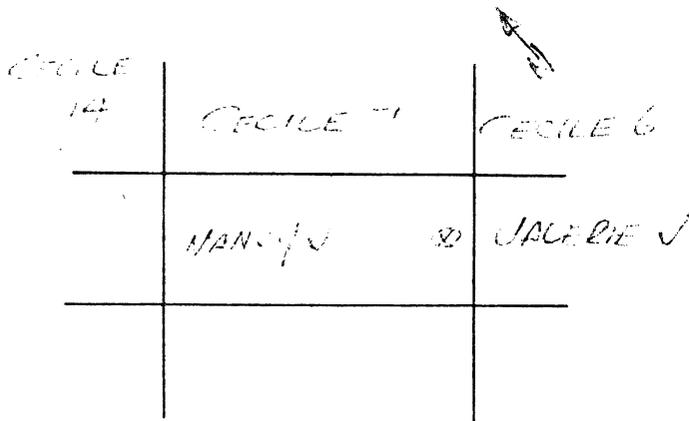
_____, SANTA CRUZ County, Arizona.
(some prominent or permanent reference or monument)



ESSEX INTERNATIONAL, INC.
by John Kenneth Jones, AGENT
Locator
Barclay A. Jones WITNESS

ARIZONA
 NOTICE OF LOCATION
 (LODE)

NOTICE IS HEREBY GIVEN that the NANCY J lode mining claim was located by ESSEX INTERNATIONAL, INC. on APRIL 6, 1974. This claim is 1,500 feet in length along the vein or deposit of mineral-bearing rock in place and 300 feet in width on each side of the middle of said vein or deposit at which this notice is posted. The general course of this claim is NW-SE and is situated in the ORO BLANCO Mining District, SANTA CRUZ County, Arizona. This claim runs from the location monument or stake on which the notice is posted 50 feet in a SE direction to the South center end monument or stake and 1450 feet in a NW direction from the location monument or stake to the North center end monument or stake, and is also marked by two corner monuments or stakes at each end of the claim in the form of a parallelogram. This claim, one and part of a contiguous group called _____ thru _____ and is located approximately in SW part of Section 36 Township 22S, Range 10E, Gila and Salt River Basin and Meridian, or _____ in a _____ direction from _____ (feet or miles) _____, Santa Cruz County, Arizona.
 (some prominent or permanent reference or monument)

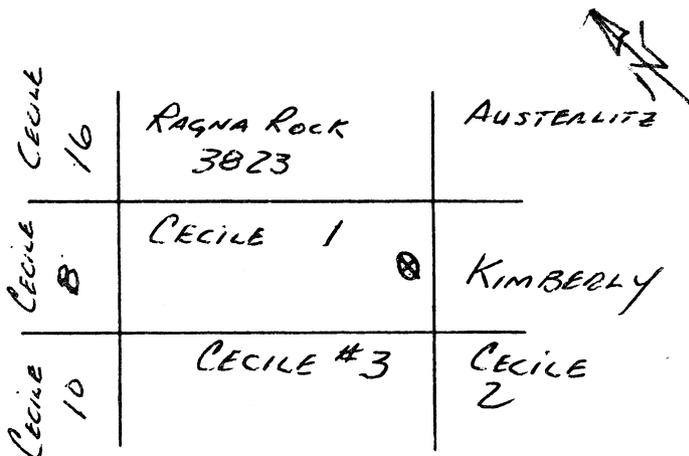


ESSEX INTERNATIONAL, INC.
 by: John Kenneth Brown Agent
 Locator
Dorothy A. Jones
 WITNESS

ARIZONA
NOTICE OF LOCATION
(LODE)

NOTICE IS HEREBY GIVEN that the CECILE 1 lode mining claim was located by ESSEX INT'L INC on MAR 28, 1974. This claim is 1,500 feet in length along the vein or deposit of mineral-bearing rock in place and 300 feet in width on each side of the middle of said vein or deposit at which this notice is posted. The general course of this claim is NW-SE and is situated in the ORO BLANCO Mining District, SANTA CRUZ County, Arizona. This claim runs from the location monument or stake on which the notice is posted 1450 feet in a NW direction to the NW center end monument or stake and 50 feet in a SE direction from the location monument or stake to the SE center end monument or stake, and is also marked by two corner monuments or stakes at each end of the claim in the form of a parallelogram. This claim, one and part of a contiguous group called CECILE 1 thru CECILE 27 and is located approximately in CENTER-NE-SE 1/4 part of Section 36 Township 22 S, Range 10 E, Gila and Salt River Basin and Meridian, or _____ in a _____ direction from _____ (feet or miles)

_____, _____ County, Arizona.
(some prominent or permanent reference or monument)



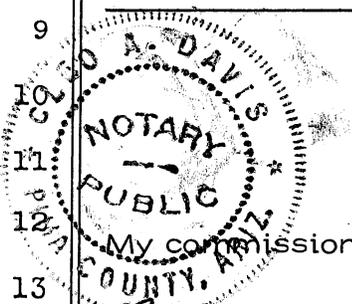
ESSEX INTERNATIONAL, INC
John R. Wilson agent
Locator
John Kennedy for a witness

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John R. Wilson, Project Geologist; J. Kenneth Jones, Chief Geologist, all employees of Essex International, Inc., and all qualified by education or experience or both to conduct such work, and can be contacted at 1704 West Grant Road, Tucson, Arizona 85705.

By: *E. Grover Heinrichs*
E. Grover Heinrichs

Subscribed and sworn to before me this 13th day of September, 1974.



C. A. Davis
Notary Public

My commission expires:
Nov. 19, 1976

1 GEOLOGICAL REPORT
 2 FOR
 3 AFFIDAVIT OF LABOR PERFORMED

4 This report is for the purpose of outlining the extent and nature
 5 of work done on the following described unpatented mining claims, all
 6 located in portions of Sec. 36, T.22S., R.10E.; 31; T.22S., R11E.;
 7 6, T.23S., R.11E, Oro Blanco Mining District, Santa Cruz County,
 8 Arizona.

CLAIM NAME	RECORDED	
	Docket	Page
Austerlitz	30	306
Addition	30	308
Central	30	309
Kimberly	30	313
Switzerland	30	307
Terry	30	310
John J.	30	311
Gilroy	30	312

13 The work done on the said property was performed to fulfill the
 14 requirements for annual labor for the period of Sept. 1, 1973 to Sept. 1,
 15 1974 and consisted of geologic mapping and geochemical sampling.

16 The cost of the work done was in excess of \$100.00/claim and
 17 exceeded a total cost of \$800.00 and completes the requirements of
 18 assessment work as prescribed by the statutes of the United States and
 19 the State of Arizona as they pertain to annual assessment work.

20 The geologic work was done by John R. Wilson, Project Geologist,
 21 under the general supervision of J. Kenneth Jones, Chief Geologist, and
 22 assisted by E. Grover Heinrichs, Assistant Manager of Exploration, all
 23 employees of Essex International, Inc. and all qualified by education or
 24 experience or both, to conduct such work.

25 Basic Findings

26 The rocks in the vicinity of the Austerlitz Mine consist of Jurassic,
 27 Cretaceous and Tertiary intrusive rocks, Jurassic volcanic rocks and
 28 Jurassic and Cretaceous sedimentary rocks.

29 The oldest of the intrusive rocks appears to be the Jurassic(?)
 30 quartz monzonite plugs observed in the western portion of the map area.
 31 These plugs are generally elongate in a north-south direction and range
 32 in size from approximately 400 feet to 1000 feet in the long dimension
 and 200 feet to 500 feet in the shorter dimension. The quartz monzonite
 is generally medium grained and generally shows no more than weak
 chloritically altered mafic minerals. The next youngest intrusive unit
 appears to be the Cretaceous(?) diorite. These intrusives are generally
 in the southeastern and north central portions of the mapped area and
 generally range in size from less than 200 feet to over 1000 feet in
 diameter. Alteration is generally quite weakly exhibited in this rock
 and consists only of local chloritic alteration. The youngest of the in-

1 trusive rocks observed in the area are the Tertiary(?) quartz monzonite
2 porphyry to granodiorite porphyry dikes. These dikes generally strike
3 northwesterly and are always in close spatial relationship to the observed
4 gold-silver mineralization. These dikes are probably also genetically
5 related to mineralization.

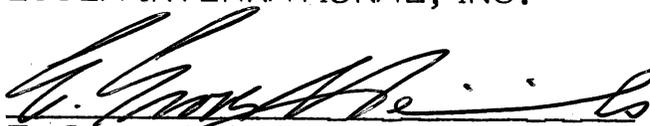
6 The oldest of the rocks in the area appear to be the Jurassic(?)
7 Cobre Ridge tuff. These rocks in general strike northwesterly and
8 gently to the northeast. The Cobre Ridge tuff is actually a welded rhyo-
9 litic to dacitic tuff and is the sole host for all the mineralization observed
10 in the area.

11 In general, the sedimentary rocks occupy only a small percentage
12 of the mapped area and are of very little importance in the overall geologic
13 picture. Rock types vary from conglomerate to sandstones mixed with
14 agglomerates.

15 Structurally, the area is marked by an extremely strong north-
16 west trending, northeast dipping fault. This fault in general separates
17 the intrusives and mineralized volcanics on the southwest from the un-
18 mineralized intrusives and sedimentary rocks on the northeast. In addi-
19 tion to this major structure, several near east-west trending, north
20 dipping faults were also observed in the area.

21 See geologic sketch map attached.

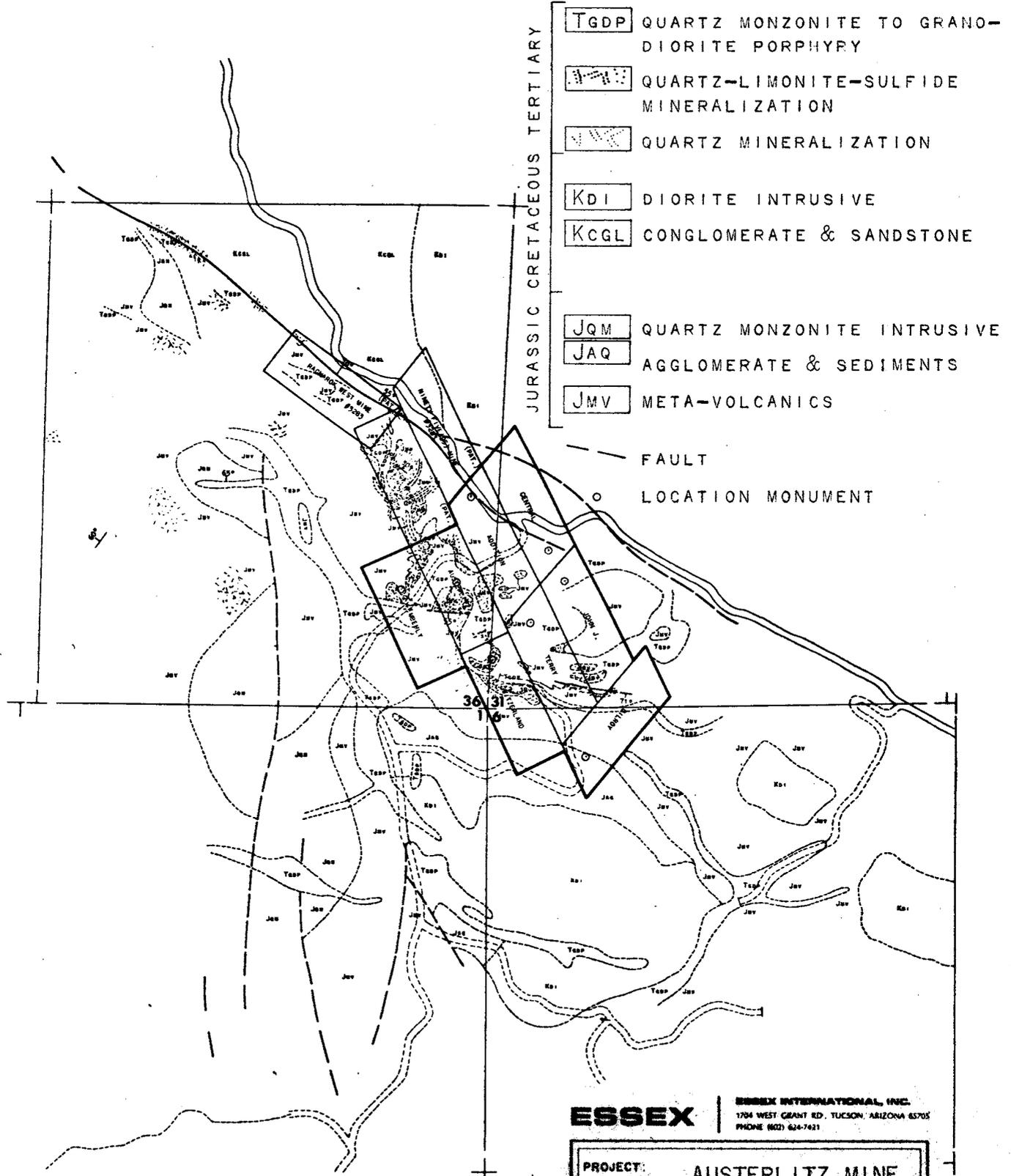
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ESSEX INTERNATIONAL, INC.



E. Grover Heinrichs
Assistant Manager Exploration



John R. Wilson
Project Geologist



ESSEX | **ESSEX INTERNATIONAL, INC.**
 1704 WEST GRANT RD., TUCSON, ARIZONA 85705
 PHONE (602) 624-7421

PROJECT:	AUSTERLITZ MINE
PROSPECT NUMBER:	SANTA CRUZ, ARIZ
COUNTY, STATE:	S36, T22S, R10E
T. R. & SECTION:	S31, T22S, R11E
	S6, T23S, R11E
CLAIM-GEOLOGY MAP	
SCALE:	1" = 1610' APPR.
DATE:	9/5/74
DATA BY:	K. JONES
PREPARED BY:	J. WILSON

BOUNDARY OF UNPATENTED CLAIMS
 & AREA OF GEOLOGIC STUDY FOR
 ASSESSMENT YEAR 1973-1974

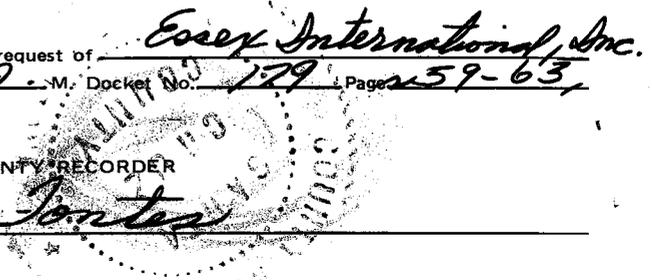
9074

FEE NO. _____

STATE OF ARIZONA, County of Santa Cruz — SS.
 do hereby certify that the within instrument was filed and recorded at the request of Essex International, Inc.
 on SEP 18 1974 A. D., 1974 at 9:07 o'clock A.-M., Docket No. 179 Page 59-63,
 Records of Santa Cruz County, Arizona.

WITNESS my hand and official seal the day and year first above written.
G. ESPINOSA MORENO, COUNTY RECORDER

By Laura G. Jontes
 Deputy



MINERAL LEASE AND OPTION

1. Parties

This Mineral Lease and Option is made effective this 26 day of March, 1974, between HORTON E. NOON and MURIEL B. NOON, husband and wife, hereinafter designated as "OWNERS", and LYALL J. LICHTY and CECILE E. LICHTY, husband and wife, hereinafter collectively designated as "LESSEE".

2. Description of Property

OWNERS are the owners of certain patented and unpatented mining claims in the Oro Blanco Mining District, Santa Cruz County, Arizona, more particularly described as follows:

Patented Claims

The following patented lode mining claims of United States Mineral Survey No. 3285, the United States Patent to which claims was recorded in the office of the Santa Cruz County Recorder on August 13, 1919 as follows:

<u>Name of Claim</u>	<u>Deeds of Mines</u> <u>Book</u>	<u>Page</u>
Ragnarok	6	585
Ragnarok West	6	585
Ninety Five	6	585

all as more fully described in the said United States Patent, which descriptions are by this reference incorporated herein.

Unpatented Claims

The following named unpatented lode mining claims, the location notices of which are of record in the office of the Santa Cruz County Recorder as follows:

<u>Name of Claim</u>	<u>Mining Locations:</u> <u>Book</u>	<u>Page</u>
Austerlitz	30	306
Addition	30	308
Central	30	309
Kimberly	30	313

Switzerland	30	307
Terry	30	310
John J.	30	311
Gilroy	30	312

which patented and unpatented mining claims, together with any additional claims located by LESSEE pursuant to the last paragraph of this Section 2, are hereinafter referred to as the "Property".

OWNERS declare that to their best knowledge and belief they now hold title and exclusive possession of the lands described herein, including the minerals therein, free and clear of all former grants, sales, liens or encumbrances of any kind made or created by the OWNERS; that there are no delinquent taxes; and there are no conflicting or adverse claims affecting the Property.

Any mining claims which the LESSEE may locate within a two mile radius of the Southeast corner monument of the Ragnarok Patented Claim referred to above shall be incorporated in and made subject to the terms of this Mineral Lease and Option. LESSEE shall not be required to pay any greater price for the Property by reason of such locations; but it is understood and agreed that in the event LESSEE shall forfeit or relinquish this Mineral Lease and Option, that all such mining claims shall be quitclaimed to the OWNERS.

3. Grant; Term

For and in consideration of ten dollars (\$10.00), receipt of which is hereby acknowledged, and the covenants hereinafter set forth, OWNERS hereby grant to the LESSEE a lease of the Property for the term of ten (10) years; TOGETHER WITH the exclusive option to purchase the same at

any time prior to the expiration or termination thereof, all on the terms and conditions as set forth in the Mineral Lease and Option. In the event LESSEE exercises its option to purchase the Property, the term of this agreement shall extend for the period of time until LESSEE either completes payment of the total purchase price and receives delivery of the deed conveying the Property to LESSEE, all as more fully set forth in Section 11, or relinquishes this Mineral Lease and Option in the manner set forth in Section 12.

4. LESSEE's Possession and Use of the Property

Upon the execution of this Mineral Lease and Option, the LESSEE shall have the exclusive right to search for and mine minerals from the Property, and for this purpose to prospect, explore, examine, sample, and conduct mining, milling, and metallurgical operations of every kind and nature. LESSEE shall be the sole judge of the methods and processes used so long as they are employed in a good and workmanlike manner after the practice of good mining.

The LESSEE shall have the right to use all the surface of the herein-described land for the conduct of its prospecting, exploring, mining, and metallurgical operations, including waste and tailings disposal, employee housing, roads, telephone, power, water and gas lines, and for all other purposes both necessary and incidental to the conduct of a mining operation and employee facilities.

The OWNERS shall have the right to graze their livestock on the surface of said land until such time as LESSEE may exercise its optional right to purchase the herein-described Property, so long as said livestock do not interfere with the LESSEE's operations.

The OWNERS or their duly authorized agent at their sole risk and expense, shall be permitted to enter upon the workings of the LESSEE at reasonable times for purposes of inspection, and LESSEE shall assist them with their facilities in every reasonable way for the purpose of accomplishing such inspections.

5. Rent and Royalty

LESSEE shall pay to OWNERS a royalty of ten percent (10%) of Net Smelter Returns on any ore or concentrates mined from the Property and shipped to a smelter.

"Net Smelter Returns" is defined as the proceeds received by the LESSEE from the smelter or other place of sale, less transportation from mine ore bins or mill concentrate bins to the smelter or other place of sale, including trucking and railroad freight, and less all taxes resulting from the severance and sale of the minerals, such as, but not limited to, sales tax, transaction privilege tax and severance tax. In the event any premium metal payments or government subsidies are paid on any ore mined from the Property, then, unless prohibited or limited by law or government regulations, LESSEE shall pay to OWNERS a percentage of such premium metal payments or government subsidies equal to the royalty percentage payable under this Section 5.

The royalties payable on account of the sale of products from the Property as referred to in the preceding paragraph of this Section 5 shall be deducted by the smelter or other purchaser for each purchase and shall be paid to such person and at such place OWNERS shall designate by notice to LESSEE. Until otherwise designated by OWNERS, said royalties shall be paid to Horton E. Noon, Patagonia Road,

Nogales, Arizona. The royalty payments shall be accompanied by a copy of the smelter returns or other settlement sheet.

In the event gold or silver bullion is produced from ores or concentrates, as distinguished from shipping ores or concentrate containing gold and silver to a smelter or other purchaser, LESSEE shall pay to OWNERS a royalty on gold and/or silver bullion produced and sold from the Property equal to five percent (5%) of the net proceeds received from the sale of said bullion. "Net proceeds" is defined as the amount received from the United States mint or from a refiner or other purchaser less transportation charges on bullion. Royalty payments of such net proceeds shall be accompanied by a copy of the settlement and shall be paid to OWNERS in the manner set forth in the preceding paragraph.

LESSEE will pay OWNERS a minimum royalty of FIVE HUNDRED DOLLARS (\$500.00) per month, commencing on the date seven (7) months after the effective date of this Mineral Lease and Option until and including the payment due in December, 1975. Beginning January 1, 1976 and for every month thereafter until the agreement is terminated pursuant to Section 12 of this Mineral Lease and Option, or until the Property is purchased by the LESSEE or its assigns pursuant to Section 11 of this Mineral Lease and Option. LESSEE will pay OWNERS ONE THOUSAND DOLLARS (\$1,000.00) per month as minimum royalty.

All payments made on the monthly bases as minimum royalty are to be credited against earned royalty from the shipments of ore, concentrates or bullion.

The LESSEE shall keep accurate books of account relating to the sale and disposal of ore, concentrates and gold and/or silver, and such books, as they relate to

computation and payment of royalty, shall be open to the inspection of the OWNERS or their authorized agent at reasonable times.

OWNERS recognize the fact that the conduct of mining operations may deprive them of the use of all or parts of the surface as a result of mining operations. The royalty specified in this Mineral Lease and Option shall be in full and complete satisfaction of any and all claims that OWNERS may have against LESSEE for surface use, damage to the land, or for any other cause whatsoever arising out of or caused by the conduct of mining operations of LESSEE, except as otherwise specifically provided in this Mineral Lease and Option. LESSEE agrees to fence any tailing ponds or other areas which, as a result of work performed by LESSEE, are dangerous to persons or to livestock and take all necessary steps to prevent the operations of LESSEE to cause the existence of any dangerous condition or conditions with respect to persons or livestock.

6. Work Obligations

(a) Drilling - The LESSEE for and in consideration of the leasing of the Property hereby covenants and agrees with OWNERS to commence rotary or core drilling within seven (7) months from the date of execution of this Mineral Lease and Option unless the Mineral Lease and Option is sooner terminated. LESSEE agrees to drill not less than two thousand five hundred (2,500) feet of rotary or core drill holes prior to January 1, 1976, of which one thousand (1,000) feet shall be drilled prior to expiration of the twelve (12) months immediately following the expiration of the above-mentioned 7-months' period.

(b) Annual Assessment Work - LESSEE agrees to perform the annual assessment work required by law and to prepare and record on behalf of OWNERS an affidavit of such performance beginning with the assessment year ending September 1, 1974. The LESSEE shall furnish a copy of said affidavit to the OWNERS not later than thirty (30) days prior to the last date for filing the same as specified by law. LESSEE shall have the right to perform assessment work required hereunder pursuant to a common plan of exploration or development for all of the claims or groups of claims constituting the Property, whether performed on or off the specific claims described in Section 2. LESSEE shall not be liable on account of holdings by any court or governmental agency that the effects of work so elected and performed by LESSEE do not constitute the required annual assessment work for purposes of preserving title to such claims, provided that the work so done is the kind generally accepted as assessment work and that LESSEE has expended a total amount sufficient to meet the minimum requirements with respect to all of the unpatented claims.

7. Taxes

The LESSEE agrees to pay all taxes on the Property and all taxes which may be assessed or which may become a lien against the Property by reason of the operations conducted by the LESSEE. The said taxes shall be paid when due and before delinquent. If LESSEE does not pay the taxes as they become due, OWNERS shall have the right to pay such taxes and charge such amounts against the LESSEE as additional rental. OWNERS agree to pay all taxes levied on their livestock or any on ranching improvements upon the Property.

may have been created by reason of the actions or the operations of the LESSEE.

At the time of notifying the OWNERS of its intention to exercise the option, the LESSEE, at its election, may require the OWNERS to execute the deed of conveyance and place the same in escrow with appropriate instructions to deliver the same to the LESSEE when the full purchase price has been paid.

12. Relinquishment of Lease and Option

The LESSEE shall have the right to relinquish this Mineral Lease and Option at any time after September 1, 1974, by giving written notice to OWNERS of such intention, not less than ninety (90) days prior to the end of any assessment work year, provided LESSEE is current in all obligations. Said relinquishment shall not release LESSEE from liability incurred prior to said written notice, with the express understanding, however, that notwithstanding the exercise of the option to purchase as set forth in Section 11, the LESSEE may relinquish its rights under this Mineral Lease and Option and withdraw from the performance and obligations thereof by giving the required notice to OWNERS, and all payments theretofore made by LESSEE shall be retained by OWNERS as liquidated damages in full satisfaction of all sums then remaining to be paid on the total purchase price.

13. Surrender of Possession and Removal of Property

Upon termination of this Mineral Lease and Option (other than by purchase by LESSEE of the Property), LESSEE agrees to surrender possession and shall furnish a quitclaim deed to the OWNERS of the herein-described premises subject to the condition that LESSEE shall have the right at any time

within ninety (90) days after the surrender, termination, or cancellation of this Mineral Lease and Option to remove all machinery, supplies, fixtures, houses, buildings and other structures placed on the premises, except timber and ladders installed underground, and casing in wells. Title to property not removed within ninety (90) days shall pass to the OWNERS.

In the event of termination of this Mineral Lease and Option other than by payment of the full purchase price, LESSEE shall deliver to OWNERS a summary of exploration work done and the results obtained therefrom, together with copies of engineering data, maps and assays.

14. Notice of Default

In the event of a default on the part of the LESSEE, the OWNERS shall give to the LESSEE a written notice by registered mail specifying the particular default or defaults relied upon by it, and the LESSEE shall have thirty (30) days after the receipt of said notice in which to rectify such default or defaults, in which event this Mineral Lease and Option shall continue in full force and effect as though no default had occurred. OWNERS, however, shall not be required to give to the LESSEE written notice as provided above for defaults in the payment of rent or royalty required herein.

Failure by the OWNER to enforce compliance with any term or condition hereof shall not constitute a waiver by the OWNERS of said term or condition or any other provision of this Mineral Lease and Option.

15. Arbitration

In case of any dispute between the parties hereto with respect to the provisions of this Mineral Lease and Option, except a dispute which involves the cancellation or

forfeiture of the Mineral Lease and Option, the same shall be submitted to and settled by an arbitration board composed of three arbitrators, all of whom shall be disinterested persons of experience in the mining business, or if no mining question is involved, then persons having technical competence relative to the point in dispute, and who are not and never have been associated with either party to the dispute. One arbitrator shall be appointed by the OWNERS, one by the LESSEE, and a third selected by the first two arbitrators. In the event arbitration becomes necessary in the opinion of either party, written notice by registered mail shall be given to the other party, and within ten (10) days after receipt of such notice each party shall appoint its respective arbitrator and notify the other party by registered mail of the arbitrator's name and address. Within fifteen (15) days after their appointment the two appointees shall elect a third arbitrator and he shall set a date which shall not be more than fifteen (15) days from the date of his appointment, at which time both parties to this Mineral Lease and Option shall appear and present such books, records and evidence, either documentary or oral as may be required by the arbitrators, and the meeting may be adjourned and reconvened if necessary to complete the data required to render a decision. Within fifteen (15) days after the close of the hearing the arbitrators shall render their decision in writing, and the decision of any two of them shall be binding upon the parties. The expense of arbitration shall be paid in equal proportions by the OWNERS and LESSEE.

Any dispute which involves the cancellation or forfeiture of this Mineral Lease and Option shall be litigated

in accordance with the established rules of procedure and shall not be a subject for arbitration.

16. Assignment

LESSEE shall have the right to assign this Mineral Lease and Option or any interest herein and to sublet the Property. Any assignment or sublease shall be in writing and shall provide that the assignee or sublessee shall assume all the obligations imposed upon the LESSEE by this Mineral Lease and Option, and the LESSEE shall furnish and deliver to OWNERS an executed, recordable copy, or a Memorandum thereof, of such assignment or sublease within thirty (30) days after such assignment or sublease.

17. Notices

All notices herein provided for shall be given by registered mail to the OWNERS and to the LESSEE at the following addresses:

OWNERS: Mr. Horton E. Noon
Patagonia Road
Nogales, Arizona

LESSEE: Mr. L. J. Lichty
P. O. Box 1267
Tubac, Arizona 85640

Addresses may be changed by either party upon written notice to the other party.

18. Force Majeure

LESSEE shall not be liable for failure to perform any of its obligations hereunder, other than its obligations to make money payments, during periods in which performance is prevented by any cause reasonably beyond LESSEE's control, which causes hereinafter are called "force majeure". For purposes of this Mineral Lease and Option, the term "force majeure" shall include, but shall not necessarily be limited

to Acts of God, fire, flood, undue shortage of power, strikes, insurrection or mob violence, requirements or regulations of government, and other causes which are beyond the control of LESSEE; provided, however, that LESSEE shall use all reasonable diligence to remove the cause or causes of the disability as may occur from time to time.

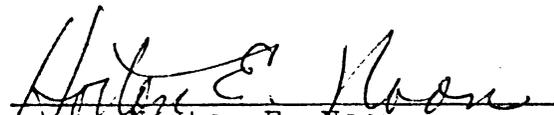
19. Memorandum for Recording

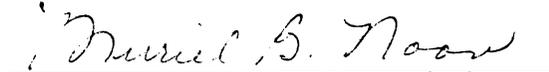
The parties hereto agree to execute a memorandum of this Mineral Lease and Option for recording purposes, and either party may record this Mineral Lease and Option or Memorandum of Mineral Lease and Option for Recording.

This agreement is binding upon the heirs, administrators, successors and assigns of the parties hereto.

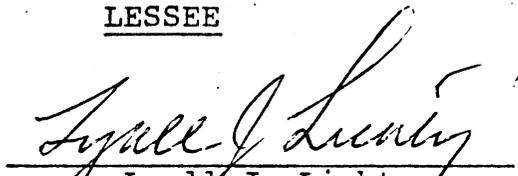
IN WITNESS WHEREOF, this Mineral Lease and Option has been executed effective as of the date first above set forth.

OWNERS


Horton E. Noon


Muriel B. Noon

LESSEE


Lyall J. Lichty


Cecile E. Lichty

STATE OF ARIZONA)
) ss.
COUNTY OF Santa Cruz)

The foregoing was acknowledged before me this
26 day of March, 1974, by Horton E Noon
and Marion B. Noon, husband and wife.

Jack Medlin
Notary Public

My commission expires:

5-13-75

STATE OF ARIZONA)
) ss.
COUNTY OF Santa Cruz)

The foregoing was acknowledged before me this
26 day of March, 1974, by Royall J. Liberty
and Cecile E. Liberty, husband and wife.

Jack Medlin
Notary Public

My commission expires:

5-13-75

1. Notice of Relinquishment (Letter)
2. Release & Relinquishment Document signed by H.L.
3. Copy of Affidavit

VERITY & SMITH
ATTORNEYS AT LAW
SUITE 902 TRANSAMERICA BUILDING
177 NORTH CHURCH AVENUE
TUCSON, ARIZONA 85701

VICTOR H. VERITY
LEO N. SMITH
JOHN C. LACY
DESMOND P. KEARNS
ROGER W. TAYLOR
JOHN F. MUNGER

AREA CODE 602
TELEPHONE 622-7445

June 24, 1974

C
O
P
Y

Mr. Howard Lanier
Vice President and General Manager
Metallurgical & Mining Division
Essex International, Inc.
1601 Wall Street
Fort Wayne, Indiana 46804

Re: Austerlitz

Dear Howard:

Enclosed for Essex' records is the recorded Assignment of Mineral Lease and Option from Lyall J. Lichty et ux to Essex International, Inc. Also enclosed is a copy of a letter I prepared for Mr. Lichty's signature transmitting to the owners a copy of the Assignment as required by the Mineral Lease and Option.

Very truly yours,

Leo N. Smith

LNS/mk

Enclosures

CC: Paul I. Eimon (w/enclosure)
~~Lyall J. Lichty~~ (w/enclosure)

June 24, 1974
P. O. Box 1267
Tubac, Arizona 85640

Mr. Horton E. Noon
Patagonia Road
Nogales, Arizona 85640

Dear Mr. Noon:

Pursuant to Section 16 of Mineral Lease and Option between you and your wife as "Owners" and Lyall J. Lichty and Cecile E. Lichty (as Lessee), I am enclosing herewith a copy of a recorded Assignment of Mineral Lease and Option whereunder the Lichtys assign to Essex International, Inc. the Mineral Lease and Option. As you will note from the enclosed "Assignment" Essex International, Inc. has expressly assumed the obligations under the Mineral Lease and Option.

For purposes of notice under Section 17 of the Mineral Lease and Option please be advised that Notices to Lessee thereunder should be directed to:

Essex International, Inc.
1601 Wall Street
Fort Wayne, Indiana 46804

with a copy to:

Essex International, Inc.
1704 West Grant Road
Tucson, Arizona 85705

If you have any questions concerning the foregoing please feel free to contact me.

Very truly yours,

Lyall J. Lichty

LJL/mk
Enclosure
CC: Essex International, Inc.
Leo N. Smith

ASSIGNMENT
OF
MINERAL LEASE AND OPTION

LYALL J. LICHTY and CECILE E. LICHTY, husband and wife, (hereinafter "ASSIGNORS"), for a good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, do hereby assign unto ESSEX INTERNATIONAL, INC., a Michigan corporation authorized to do business in the State of Arizona (hereinafter "ESSEX"), all of the rights, titles and interests acquired by ASSIGNORS under the provisions of that certain Mineral Lease and Option dated March 26, 1974, by and between Horton E. Noon and Muriel B. Noon (as "Owners") and ASSIGNORS (as "Lessee"), a Memorandum of which Mineral Lease is of record in the office of the Recorder of Santa Cruz County, Arizona, in Docket 173 at page 283, and which said Mineral Lease pertains to the property described in Exhibit A attached hereto and made a part hereof.

TO HAVE AND TO HOLD the same unto ESSEX, its successors and assigns, all in accordance with and subject to the provisions of the said Mineral Lease, the obligations of ASSIGNORS under which Mineral Lease ESSEX hereby expressly assumes.

IN WITNESS WHEREOF, this ASSIGNMENT OF MINERAL LEASE AND OPTION has been executed effective from and after the 7th day of May, 1974.

ASSIGNORS

Lyll J. Lichty

Lyll J. Lichty

Cecile E. Lichty

Cecile E. Lichty

ESSEX

ESSEX INTERNATIONAL, INC.

By *Harold L. ...*

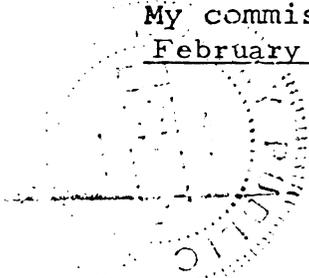
Attest: *Harold L. ...*

STATE OF INDIANA)
) ss.
COUNTY OF ALLEN)

The foregoing instrument was acknowledged before me this 17th day of May, 1974, by Howard Lanier, the Vice President of ESSEX INTERNATIONAL, INC. a Michigan corporation, on behalf of the corporation.

Evelyn J. Harris
Notary Public

My commission expires:
February 3, 1977

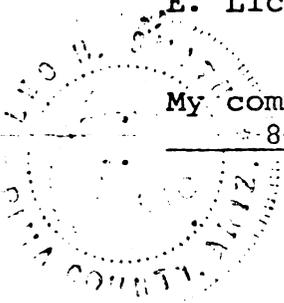


STATE OF ARIZONA)
) ss.
COUNTY OF PIMA)

The foregoing instrument was acknowledged before me this 7th day of May, 1974, by Lyall J. Lichty and Cecile E. Lichty, husband and wife.

L. V. Smith
Notary Public

My commission expires:
8-22-74



STATE OF ARIZONA) ss.
County of Santa Cruz)

NO. 7456

I hereby certify that the within instrument was filed and recorded at the request of

Verity & Smith, MAY 24 1974, A. D., 19 at 9:51 A.M. DOCKET NO. 174 Pages 219:221

Witness my hand and official seal the day and year aforesaid.

G. ESPINOSA MORENO, County Recorder

By Laura A. Dantes
Deputy County Recorder

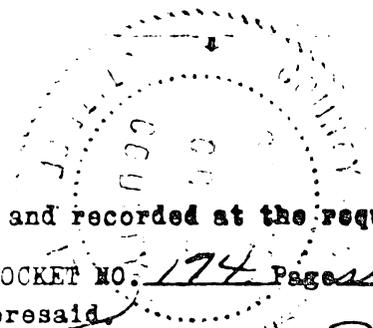


EXHIBIT A

EXHIBIT A to ASSIGNMENT OF MINERAL LEASE AND OPTION
by and between Lyall J. Lichty and Cecile E. Lichty (as
ASSIGNORS) and Essex International, Inc., being a descrip-
tion of the property subject to the Mineral Lease assigned:

The following-described patented and unpatented
lode mining claims in the Oro Blanco Mining District,
Santa Cruz County, Arizona:

Patented Claims

The following patented lode mining claims of
United States Mineral Survey No. 3285, the United
States Patent to which claims was recorded in the
office of the Santa Cruz County Recorder on August
13, 1919 as follows:

<u>Name of Claim</u>	<u>Deeds of Mines Book</u>	<u>Page</u>
Ragnarok	6	585
Ragnarok West	6	585
Ninety Five	6	585

all as more fully described in the said United States
Patent, which descriptions are by this reference incor-
porated herein.

Unpatented Claims

The following named unpatented lode mining claims,
the location notices of which are of record in the office
of the Santa Cruz County Recorder as follows:

<u>Name of Claim</u>	<u>Mining Locations: Book</u>	<u>Page</u>
Austerlitz	30	306
Addition	30	308
Central	30	309
Kimberly	30	313
Switzerland	30	307
Terry	30	310
John J.	30	311
Gilroy	30	312

FROM WORKSHEET

ESSEX INTERNATIONAL, INC.

FLOTATION TEST REPORT

NUMBER: 2126-3

AUSTERLITZ
1198

DATE: 5-3-74

SAMPLE NUMBER:

CONDITIONS AND REAGENTS

	Time Mins	% Solids	pH	REAGENTS - LBS PER TON				OBSERVATIONS
				AF25	B#4	PAX	CuSO ₄	
Grind	22.5	67	6.2	.02	.08			
Conditioner	1.0			.10	.10			
Rougher	1.5							
Scavenger	9.0				.10			Test should be repeated with more B#4 and CuSO ₄

Grind - 62.7% minus 200 mesh - - - Green oxide of copper visible in heads
METALLURGICAL RESULTS

SAMPLE NO.	PRODUCT	WEIGHT		ANALYSES			METAL BALANCE			% DISTRIBUTION		
		GMS	%	% Cu	Au oz/T	Ag oz/T	Cu	Au	Ag	Cu	Au	Ag
2126-3	Conc.	20.8	2.1	.31	0.91	30.2	.651	1.911	63.42	20.4	73.6	65.6
2126-3	Tails	977.7	97.9	.026	0.007	.34	2.545	.685	33.29	79.6	26.4	34.4
Calc.	Heads	998.5	100.0	.032	.026	.97	3.196	2.596	96.71	100.0	100.0	100.0

FROM WORKSHEET

ESSEX INTERNATIONAL, INC.

FLOTATION TEST REPORT

NUMBER: 2126-2

SAMPLE NUMBER: AUSTERLITZ
1197

DATE: 5-3-74

CONDITIONS AND REAGENTS

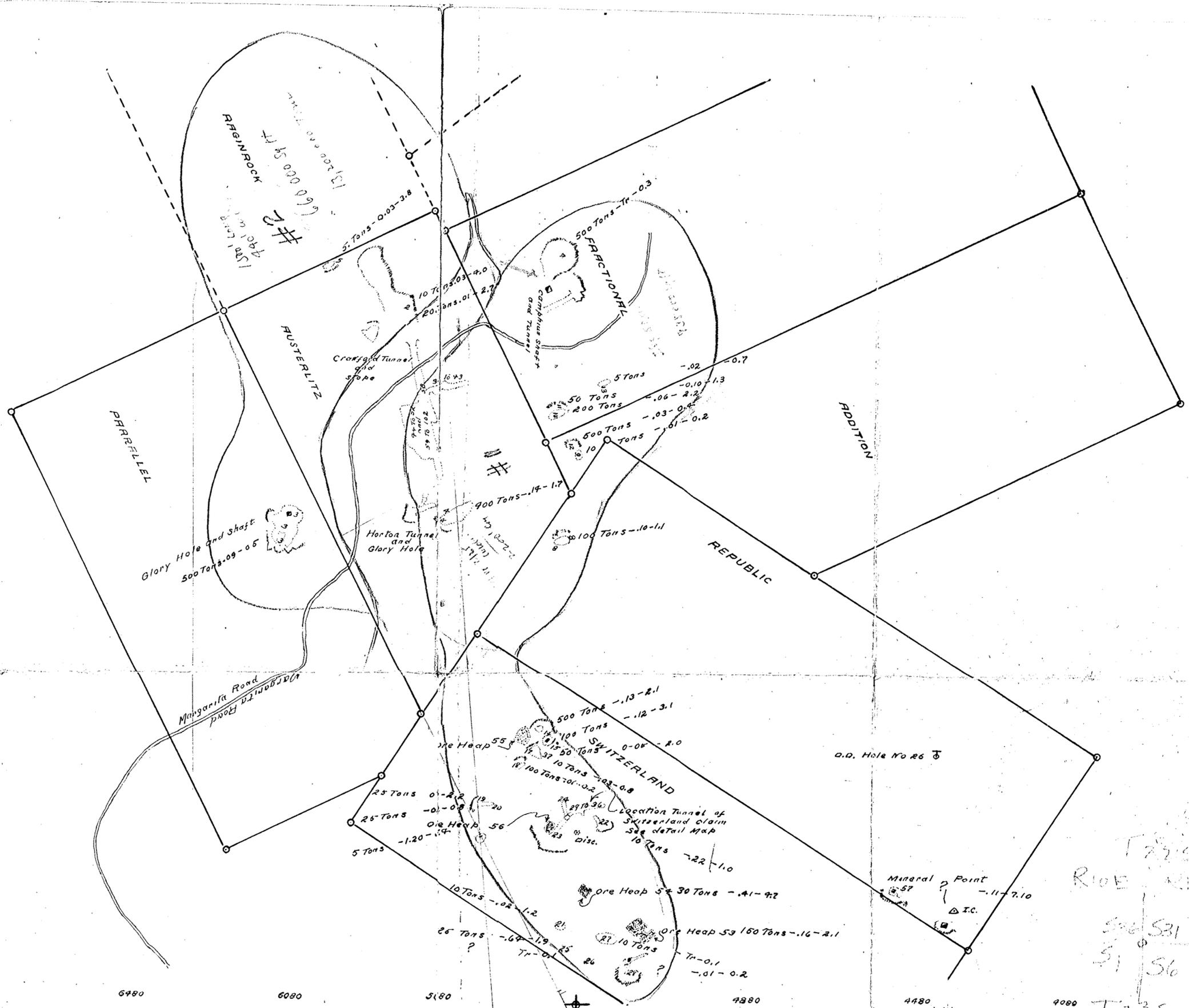
	Time Mins	% Solids	pH	REAGENTS - LBS PER TON				OBSERVATIONS
				AF25	B#4	PAX	CuSO ₄	
Grind	27.5	67	6.1	.02	.08			
Conditioner	3.0					0.5		
Rougher	1.5			.10				
Scavenger	9.0			.10				B#4 should be doubled to 0.16#/T.

Grind - 64.1% minus 200 mesh

No visible copper oxide minerals

METALLURGICAL RESULTS

SAMPLE NO.	PRODUCT	WEIGHT		ANALYSES			METAL BALANCE			% DISTRIBUTION		
		GMS	%	% Cu	Au oz/T	Ag oz/T	Cu	Au	Ag	Cu	Au	Ag
2126-2	Conc.	31.3	3.1	1.95	1.27	39.31	6.045	3.937	121.86	83.9	87.1	75.9
2126-2	Tails	968.8	96.9	0.012	0.006	0.40	1.163	.581	38.76	16.1	12.9	24.1
Calc.	Heads	1000.1	100.0	0.072	0.045	1.61	7.208	4.518	160.62	100.0	100.0	100.0



No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag
1	0.01	2.2	16	0.02	1.3	31	0.07	0.1	46	0.05	2.2	61	0.05	6.2	76	0.08	1.2
2	0.03	4.4	17	0.03	1.0	32	0.12	1.0	47	0.12	1.2	62	0.01	8.2	77	Trace	0.2
3	0.04	1.5	18	0.00	0.0	33	0.00	0.0	48	0.00	0.0	63	0.01	8.6	78	0.12	1.9
4	0.07	1.1	19	0.00	0.0	34	0.00	0.0	49	0.00	0.0	64	0.02	10.5	79	0.00	1.9
5	0.10	3.0	20	0.00	0.0	35	0.00	0.0	50	0.00	0.0	65	Trace	0.2	80	0.05	1.2
6	No Sample		21	0.00	0.0	36	0.12	1.1	51	0.11	1.8	66	0.05	8.4	81	0.07	2.0
7	0.2		22	0.00	0.0	37	No Sample		52	0.00	0.0	67	0.02	8.2	82	0.03	4.2
8	0.1		23	0.00	0.0	38	0.05	2.1	53	0.00	0.0	68	0.01	4.8	83	0.07	3.7
9	0.00		24	0.00	0.0	39	0.05	0.13	54	0.00	0.0	69	0.05	9.2	84	0.04	3.5
10	0.06		25	0.00	0.0	40	0.01	0.10	55	0.00	0.0	70	0.08	12.2	85	0.02	3.4
11	0.10		26	0.00	0.0	41	0.02	0.10	56	0.05	1.2	71	0.03	1.2	86	0.02	3.4
12	0.00		27	0.00	0.0	42	0.00	0.10	57	0.04	1.0	72	0.11	1.2	87	0.02	7.4
13	0.10		28	0.00	0.0	43	0.00	0.10	58	0.00	0.0	73	0.18	2.5	88	0.06	5.7
14	0.11		29	0.00	0.0	44	0.12	1.4	59	0.00	0.0	74	0.05	1.8	89	0.04	1.5
15	0.12		30	0.00	0.0	45	0.18	1.6	60	0.00	0.0	75	0.02	9.9	90	0.04	1.9

MAP OF SAMPLES
SHOWING GRADE
TAKEN FROM THE
AUSTERLITZ-
REPUBLIC GROUPS
JUNE 1935 SCALE 1 IN. = 200 FT.

F. E. GREGORY

T 235
R10E
S31
S1
S6
T 235



78
234

213
105

173
51

~~51'~~
51' NW of TP 48

45' Thick

105' exposed with

{ 315' easterly to pt. opp adit w/ incline
 { 253' more to wash.
 { 207' track now on crest of round

hill max beyond this but not
so much of it.

Now only 180' to just past Switz. dump.

234 more to loc. near Switz,

60' to dump of Switz. shaft - all group

- min. zone mayed here.

DIETZGEN NO 385-1-B

Samples from mineralized zones.

Ragnarok Hill

1163 .006 .25

1164 .004 .15

1166 .006 1.05

1167 .009 1.50

1188 .006 .36

1189 .003 .12

Selected
bulk sample

1197 .059 2.00

1165 .005 .20

Switzerland Claim

1170 .005 .75

1172 .004 .35

1190

1191 .003 .34

1171 .004 .60

1198 .033 1.41

Selected
bulk sample

Austerlitz Claim

1193 .085 1.00

1194 .002 .12

1195 trace .08

1196 .002 .22

• MAY • 74



MAY • 74





MAY

74

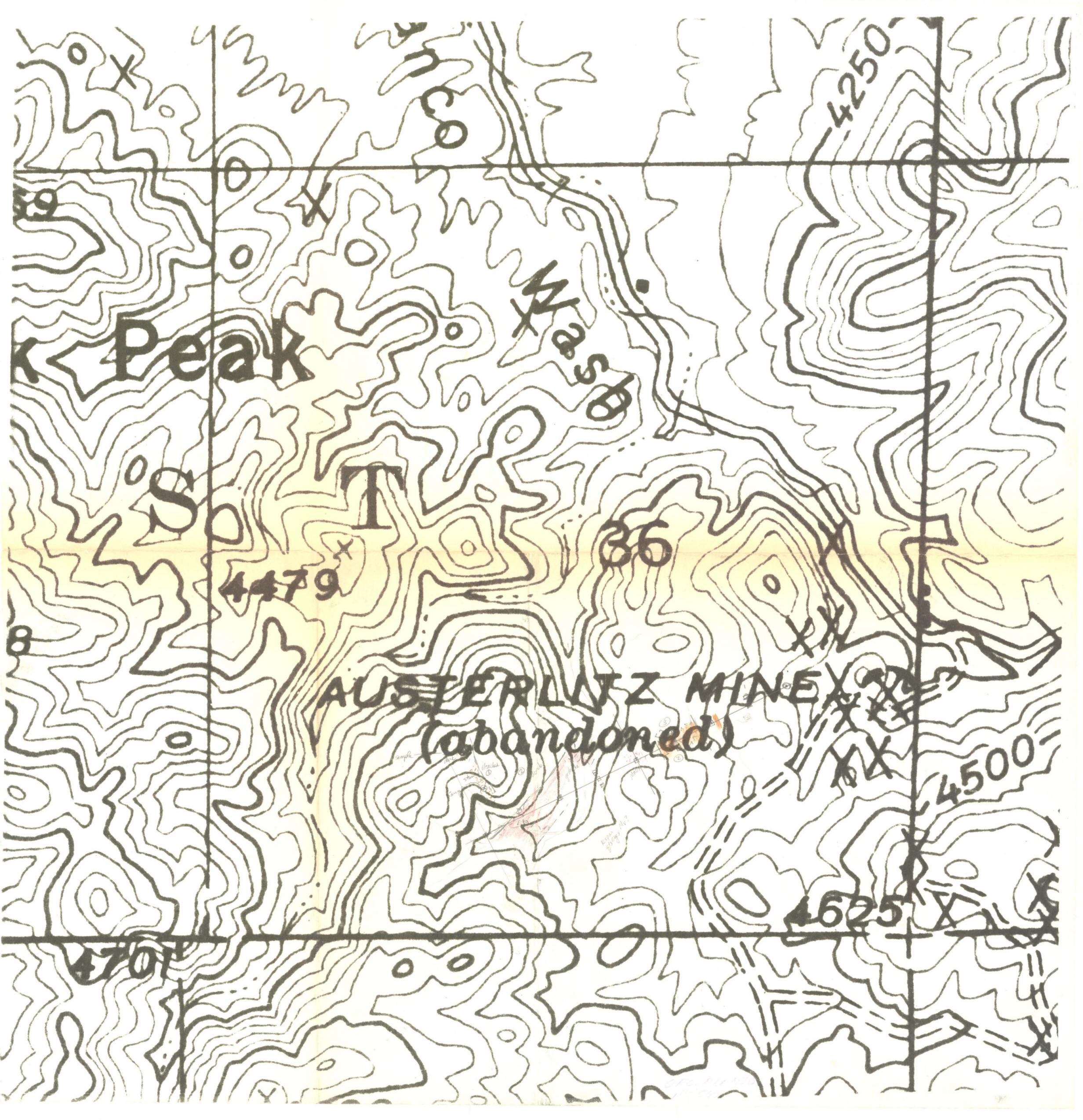
1

MAY • 74



MAY • 74





Peak

W. Pass

S

T

4479

36

AUSTERLITZ MINE
(abandoned)

4250

4500

4625

470



AUSTERLITZ SANTACRUZ Co., AZ	MINE, OR BLANCO DISTRICT	J.K. JONES NOTES TO ACCOMPANY MAPPING ON ENLARGED AIR PHOTO	DISTRIC	8	5. scattered to locally numerous quartz veinslets, strong FeOx (hematite, goethite, some jarosite), Al silicate quartz inc. stained, FeOx dec. residual	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	9
April 2, 1974	Sample No. 1163 below Lyall Lighty on 1 approx 350' NW of back sample # 3. Some breccia with black mineral which did in sample. Specimen AUS-4 small pit of porphyry 250' NE of sample.	Chip of about 10' square outcrop on 1 approx 350' NW of back sample # 3. Some breccia with black mineral which did in sample. Specimen AUS-4 small pit of porphyry 250' NE of sample.	Small cut near crest of Ragnarak hill. Painted number 39 west. Small sample cut about 3 ft. across very gently dipping strong quartz & FeOx	10	Sample 1166 5.0 ft. chip sample represents at least 100 feet of occasional quartz veinslets, weak to fair FeOx. North slope Ragnarak Hill	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	11
Sample No. 1164 -April 3, 1974	Chip of area about 3 ft. square.	Chip of area about 3 ft. square.	Small cut near crest of Ragnarak hill. Painted number 39 west. Small sample cut about 3 ft. across very gently dipping strong quartz & FeOx	12	Location Monument ADDITION, claim area is 130 ft. NW & 1370 ft. SE from this point	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	13
Sample No. 1165 35' S 60° E from	3.0 ft. chip across outcrop approx. SE corner Ragnarak patented claim. Fair quartz & veining in very pink dacite(?), but only weak FeOx	3.0 ft. chip across outcrop approx. SE corner Ragnarak patented claim. Fair quartz & veining in very pink dacite(?), but only weak FeOx	Small cut near crest of Ragnarak hill. Painted number 39 west. Small sample cut about 3 ft. across very gently dipping strong quartz & FeOx	14	Sample No. 1168 & 1169 taken from ore(?) structures on dump of East portal Berkeley tunnel. Number not marked on photo. See sample book for details.	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	15
Sample No. 1170 of outcrop south 100' ± from sulfide dump on Switzerland claim.	4.0 ft. vertical chip sample of outcrop south 100' ± from sulfide dump on Switzerland claim.	4.0 ft. vertical chip sample of outcrop south 100' ± from sulfide dump on Switzerland claim.	Small cut near crest of Ragnarak hill. Painted number 39 west. Small sample cut about 3 ft. across very gently dipping strong quartz & FeOx	16	Sample No. 1171 grab of dacite dump at contact. Sample 1178	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	17
Sample No. 1171 mineralized rock about 100 ft north of	N70°W 41° North, apparent trend of nearly massive quartz bodies north of location monument	N70°W 41° North, apparent trend of nearly massive quartz bodies north of location monument	Small cut near crest of Ragnarak hill. Painted number 39 west. Small sample cut about 3 ft. across very gently dipping strong quartz & FeOx	18	Sample No. 1171 grab of dacite dump at contact. Sample 1178	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	19
Sample No. 1172 high r. ndy, probably in NW portion of Switzerland claim.	Specimen AUS-3 porphyry adjacent to high to 3 zone high r. ndy, probably in NW portion of Switzerland claim.	Specimen AUS-3 porphyry adjacent to high to 3 zone high r. ndy, probably in NW portion of Switzerland claim.	Small cut near crest of Ragnarak hill. Painted number 39 west. Small sample cut about 3 ft. across very gently dipping strong quartz & FeOx	20	Sample No. 1173	Specimen AUS-5 taken about	Corner 1 of 75.	125 ft. N50°W from corner. Dacite porphyry with widely spaced quartz veinslets & FeOx	21

4-7-74	JK JONES			Sample No. 1182 with much quartz, FeO, That appears to dip gently north. wall of small cut. Sulfides - FeS, may be to iron hematite - on dump.	3.5 ft vertical chip of buccia
(18) 5.0' chip sample No. 1175 across Fe stained band with traces Cu, sulfides (FeS, Cu, Pb, Ag, S)			Sample No. 1183	4.0 ft vertical cut of mostly mineralized cut. Black veinlets, g, s, FeOx	DRIVING TIME AUSTERLITZ MINE TO RIO RICO INN 1 HR 20 MIN. VIA PEÑABLANCA LAKE
(19) Sample # 1176 40 ft across Fe stained, quartz laced zone exposed in bottom and wall of Canyon. Could represent larger zone than sample above but will have to spend more time here to determine. Some amethysts & quartz in sample, drusy.			4-10-74		
4-9-74			DRAWING TIME	RIO RICO INN TO AUSTERLITZ	1 HR 20 MIN. VIA PEÑABLANCA LAKE
(20) N130E 70° W. 18" x 3' drusy banded quartz			MINE VIA ARUACA	1 HR 20 MIN.	
(21) 7.0 ft sample No. 1177 across south wall of thickly banded sample No. 5. Oxidized, much FeO, CuOx.			FROM ARUACA TO MINE 9 MILES, 80 MINUTES.		
(22) Sample No. 1178 5.0 feet, about 100 ft. south of bulk sample 5 across stringy quartz laced zone but very weak FeO.			N10°W 60°E fault plane in canyon		
(23) Sample No. 1179 - on dump of tunnel at end of road just beyond corner of Cecile 14511' chert veinlets, some black veinlets, rare quartz veinlets, a little epidote some FeS.			Location monument Kevin II located by Richard Johnson 2 Sept 1969, 450' NE to N. end center, 1150' SE to S. end cent, Course North to South. Witnesses Ron Anderson, Thomas Rudy.		
(24) Sample No. 1180 7.0 foot chip sample from NE end of lower cut at top of hill at end of road above tunnel. Good FeOx, traces malachite??			S 22° W 60 or 70 feet from wooden post or hill NE of loc. mine CECILE 7 (150' E) 6.0 foot vertical chip sample of outcrop	Sample No. 01184	
(25) Sample No. 1181 5.0 foot chip sample of outcrop - broken, weak Fe stain,			Sample No. 01185	spot of 6' high outcrop at old claim corner. S 80° W 60° N. north wall of andes. porphyry dike in gm	Specimen AUS-6 g's monzomite or granite generally weak but persistent FeOx, some cubic glauco after FeS2

SALT LAKE BLUE

<p>(34) Specimen AUS 7 black veinlets? N 70° E 60° NW about 12" quartz vein with black FeS₂</p>	<p>met. volcanic - what see</p>	<p>(39)</p>	<p>Webber sample 40, similar shallow cut 30' to NW.</p>	<p>Sample 1199 50 ft. vertical sample standing near base of mineralized exposure.</p>	<p>Sample 1200 30 ft. vertical above sample 1199. on north flank of Ragnorok hill near NW end of mineralization.</p>	<p>Webber sample 53 is higher on face of Ragnorok cut probably in wall of Rotor sample #2</p>	<p>5.0' Sample # 1201 vertical chip of corner of cut on Ragnorok chain @ Rotor sample #2.</p>	<p>5.5' vertical chip about 350' down road from sample above. Sample 1202</p>	<p>(40)</p>
<p>(35) Sample No. 01186 of Festuca, dark colored outcrop. Represents 2 or 30 foot width.</p>	<p>4 1/2 ft horizontal</p>	<p>(41)</p>	<p>Webber sample 40, similar shallow cut 30' to NW.</p>	<p>Sample 1199 50 ft. vertical sample standing near base of mineralized exposure.</p>	<p>Sample 1200 30 ft. vertical above sample 1199. on north flank of Ragnorok hill near NW end of mineralization.</p>	<p>Webber sample 53 is higher on face of Ragnorok cut probably in wall of Rotor sample #2</p>	<p>5.0' Sample # 1201 vertical chip of corner of cut on Ragnorok chain @ Rotor sample #2.</p>	<p>5.5' vertical chip about 350' down road from sample above. Sample 1202</p>	<p>(41)</p>
<p>SPEC AUS 8 Shaft. Site of back sample #3, 1187, 1197. Strong #3, fair siliceous minis.</p>	<p>Shaft. Site of back sample #3, 1187, 1197. Strong #3, fair siliceous minis.</p>	<p>(42)</p>	<p>Webber sample 40, similar shallow cut 30' to NW.</p>	<p>Sample 1199 50 ft. vertical sample standing near base of mineralized exposure.</p>	<p>Sample 1200 30 ft. vertical above sample 1199. on north flank of Ragnorok hill near NW end of mineralization.</p>	<p>Webber sample 53 is higher on face of Ragnorok cut probably in wall of Rotor sample #2</p>	<p>5.0' Sample # 1201 vertical chip of corner of cut on Ragnorok chain @ Rotor sample #2.</p>	<p>5.5' vertical chip about 350' down road from sample above. Sample 1202</p>	<p>(42)</p>
<p>SPEC AUS 10 MAY-15 1474 JKW N 50° E 71° W. Fracture, some breccia in cut on Ragnorok hill SW of note (9). webber sample 47 E 48 appears to be horizontal cut (parallel to minis. trend?) along SW side of cut SE of fracture. webber 49 is horizontal cut on NE side of cut 10' NE of 47 E 48. webber 44 further west, adjacent to SE side of fracture. 43 pretty much vertical and across top. rubble, 42 adjacent to the west</p>	<p>Shaft. Site of back sample #3, 1187, 1197. Strong #3, fair siliceous minis.</p>	<p>(43)</p>	<p>Webber sample 40, similar shallow cut 30' to NW.</p>	<p>Sample 1199 50 ft. vertical sample standing near base of mineralized exposure.</p>	<p>Sample 1200 30 ft. vertical above sample 1199. on north flank of Ragnorok hill near NW end of mineralization.</p>	<p>Webber sample 53 is higher on face of Ragnorok cut probably in wall of Rotor sample #2</p>	<p>5.0' Sample # 1201 vertical chip of corner of cut on Ragnorok chain @ Rotor sample #2.</p>	<p>5.5' vertical chip about 350' down road from sample above. Sample 1202</p>	<p>(43)</p>
<p>(37) N 27° W near base of zone. other dips to the SE are 25° E 30°</p>	<p>Shaft. Site of back sample #3, 1187, 1197. Strong #3, fair siliceous minis.</p>	<p>(44)</p>	<p>Webber sample 40, similar shallow cut 30' to NW.</p>	<p>Sample 1199 50 ft. vertical sample standing near base of mineralized exposure.</p>	<p>Sample 1200 30 ft. vertical above sample 1199. on north flank of Ragnorok hill near NW end of mineralization.</p>	<p>Webber sample 53 is higher on face of Ragnorok cut probably in wall of Rotor sample #2</p>	<p>5.0' Sample # 1201 vertical chip of corner of cut on Ragnorok chain @ Rotor sample #2.</p>	<p>5.5' vertical chip about 350' down road from sample above. Sample 1202</p>	<p>(44)</p>
<p>(38) webber sample 41, horiz chip of 4' deep cut into SW side of hills beneath tree near base of minis. zone.</p>	<p>Shaft. Site of back sample #3, 1187, 1197. Strong #3, fair siliceous minis.</p>	<p>(45)</p>	<p>Webber sample 40, similar shallow cut 30' to NW.</p>	<p>Sample 1199 50 ft. vertical sample standing near base of mineralized exposure.</p>	<p>Sample 1200 30 ft. vertical above sample 1199. on north flank of Ragnorok hill near NW end of mineralization.</p>	<p>Webber sample 53 is higher on face of Ragnorok cut probably in wall of Rotor sample #2</p>	<p>5.0' Sample # 1201 vertical chip of corner of cut on Ragnorok chain @ Rotor sample #2.</p>	<p>5.5' vertical chip about 350' down road from sample above. Sample 1202</p>	<p>(45)</p>

Weighted by Turbidity

Run by Carver - J. Miller

Read by W. W. W. W.

Film No. 1093A

GEOCHEMICAL SURVEYS
SPECTROGRAPHIC ANALYSIS

PROSPECT Oro Blanco
COUNTY, STATE Arizona

Date 5-28-64

PAGE 2

Rack	Sample No.	Cd	Cu	Zn	Ag	La	Zn	Sc	Co	Sr	As	Sb	W	Fe
9														
10			160											
11	Grab sample 600' N of Austin at drift	<50	200	100	50	20	350	<5	<5	100	<200	<100	<50	15,000
12														
13	Grab sample from cut section at sample #1	<50	7500	50	75	20	750	<5	5	75	<200	1500	<50	10,000
14	Regener's claim (patented)													
15														
16	Grab sample 300' out 300'	<50	1,500	75	75	20	500	<5	<5	100	<200	<100	<50	10,000
17	NW of sample #1, Regener's claim													
18														
19	Grab sample from stackpile at Herten adit	<50	720,000	30	350	350	750	35	30	150	<200	<100	<50	50,000
20	Austin adit Austin claim													
21														
22	Grab sample from cut section claim at loading Rang	<50	10,000	100	50	75	4,000	<5	75	50	<200	<100	<50	15,000
23														
24														
25	Grab sample from cut section claim	<50	720,000	75	4000	750	1500	<5	<5	150	<200	<100	<50	15,000
26														
27	Samples chipped from top of cut at about 3' intervals	<50	15,000	350	300	75	1500	<5	<5	150	<200	<100	<50	15,000
28	cut section claim													
29														
30														
31	Grab sample from cut section claim	<50	720,000	100	1000	100	1500	<5	5	200	1000	70,000	<50	15,000

The Hanna Mining Company

(Coastal Mining Company)

~~POST OFFICE BOX 12647, TUCSON, ARIZONA 85711 (602) 298-9274~~
THE HANNA MINE & CO.
2020 East 13th St. 85713
(602) 624-4639

January 19, 1971

Mr. Horton Noon
Box 148
Nogales, Arizona 85621

Dear Mr. Noon:

Thanks for letting us borrow your literature on the Austerlitz Mine.

As you recall, we took three geochem samples from loose surface rock at the mine on 8 Jan. 61. The results are as follows:

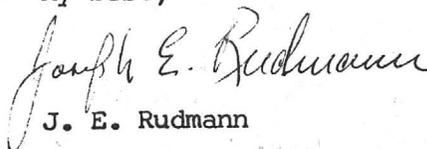
<u>Sample</u>	<u>Gold</u>	<u>Silver</u>
AD-01	4.0 PPM	110 PPM
AD-02	3.1 "	13 "
AD-03	4.4 "	20 "

Since 34.28 PPM (parts per million) equals one troy ounce per ton, one PPM of gold equals about one dollar ore. Neither gold nor silver values are encouraging, but three samples certainly don't tell the whole story.

I personally believe that redevelopment of the Austerlitz as a gold and silver mine might be an unwarranted risk. However, if you decide to re-examine its potential, I can only recommend a careful study of Mr. Knight's work, plus detailed investigations by at least one additional geologist.

At this time, Hanna Mining cannot show any interest in the property. All this aside, I would like to thank you for an interesting day in the field.

My best,


J. E. Rudmann

JER:ik

Sampling continued

		Au	Ag	Pb	Zn	Cu
No. 56	Dump (Channel)	1.20	5.40 ✓			
57	Broken "	0.11	7.40	2.40	3.10	0.21
58	" "	0.19	0.7			
59	" "	0.05	6.8			
60	" "	0.04	4.5			
61	" "	0.05	6.2			
62	" "	0.01	8.2			
63	" "	0.01	8.6			
64	" "	0.02	10.5			
65	" "	T	0.7			
66	" "	0.05	8.4			
67	" "	0.02	8.2			
68	" "	0.01	4.8			
69	" "	0.05	9.2			
70	" "	0.28	12.0			
71	" "	0.03	1.3			
72	" "	0.11	2.0			
73	" "	0.12	1.5			
74	" "	0.08	2.8			
75	" "	0.09	9.9			
76	" "	0.08	1.3			
77	" "	Trace	0.9			
78	" "	0.10	1.9			
79	" "	0.02	3.6			
80	" "	0.05	12.2			
81	" "	0.07	2.9			
82	" "	0.03	4.2			
83	" "	0.04	3.7			
84	" "	0.04	3.5			
85	" "	0.02	3.4			
86	" "	0.42	7.4			
87	" "	0.09	5.4			
88	" "	0.06	1.5			
89	" "	0.04	1.5			
90	" "	0.04	1.3			
91	" "	0.01	2.4			
92	" "	0.04	16.4			
93	" "	0.19	12.9			
94	" "	0.09	23.5			
95	" "	0.08	4.9			
96	" "	0.30	31.8			
97	" "	0.02	2.9			
98	" "	0.03	0.4			
99	" "	None	0.1			
100	" "	0.02	1.7			
101	" "	0.4	6.9			
102	" "	Trace	0.10			

100 Samples
 AG - 5.1 - 25
 46

AUSTERLITZ GROUP OF MINES

HISTORICAL:

The Austerlitz Group of Mines is situated in the Oro Blanco Mining District, Santa Cruz County, Arizona Territory. The early history of this District is lost in the mystic reaches of the past. It was probably placer mined by the Aztecs and later worked by the Spanish Friars. The Tumacacori Mission was established by the Spanish Friars about 1530 and is known to have been one of the wealthiest missions ever established in the present limits of the United States. They operated these mines until 1830 when because of differences with the Mexican Government they dismantled and closed the mission and returned to Spain.

After the departure of the Spanish Fathers, the Mexicans began working the District. There are still to be seen in a strip of territory about a mile wide by three miles long, the remains of seventy odd of the old arastras. In all this time that the district has been worked, from the time of the Aztecs down to the American occupation of the district in 1849, nothing but the surface ores had been worked. No shafts had been sunk nor tunnels driven. The reason for this is that the surface ores are very rich on the divide and average about sixty feet in width. There are also two parallel ledges, one on either side, each about one hundred feet distant from the main ledge, each of these parallel ledges averaging about eight feet in width. At the time of the American occupation in 1849, the ores upon the surface still averaged about thirty dollars per ton gold and silver, but at this time the discovery of gold in California caused both the Americans and the Mexicans to desert this district for the new Eldorado.

About 1865 a man by the name of Clinton Thompson returned from California to this District. He located several claims, among them the Austerlitz, and began working the ores in arastras. Some two years later Thompson was killed by the Indians.

In 1869 Mr. Townsend of New York, having heard of the district from Thompson, sent a mining engineer from New York to relocate the properties. The engineer sent out by Townsend located the Austerlitz Group and began the development of the property. Mr. Townsend for the purpose of better protecting his interests in the district sent over from San Francisco a Doctor Noon who is still residing in Santa Cruz County. Later Mr. Townsend got into financial difficulties and deeded all his right, title and interest in the Austerlitz Group to Doctor Noon, in whose possession the title has since remained. The Doctor has made several attempts to work the property but has never made more than a trivial success of any of these attempts, because of lack of funds with which to properly equip the property as well as a lack of knowledge of mining operations. He has leased the property a number of times and as a matter of fact, all the money that has ever been made out of the property has been made by the leasers.

I succeeded in getting hold of the details of two lists of ore which were shipped to the Arivaca mill.

	Au	Ag	Value
1st	3.50	12.00	\$76.00
2nd	.925	10.00	23.00
3rd	.9	8.00	22.00
4th	.7	11.00	19.50
5th	.65	12.20	18.60
6th	.7	12.30	20.50
<u>Average</u>	<u>1.232</u>	<u>10.75</u>	<u>30.00</u>
Tailings	1.102	8.28	23.25
Amt. saved or	92%	82%	98%

The next record of a mill run that I got hold of was of ninety tons run at the same mill, July 19th to 25th, 1893.

Battery Assays

	Au	Ag	Value
1st play	1.00	13.00	26.50
2nd "	.70	11.00	19.50
3rd "	1.00	11.00	25.50
4th "	.75	10.25	20.12
5th "	.55	8.00	15.00
<u>Average,</u>	<u>.80</u>	<u>10.65</u>	<u>21.37</u>
Tailings,	.12	2.60	3.70
Saved,	.68	8.05	17.67
or	85%	80%	

The above is what the mill actually paid for the ores. In 1894 a mining man by the name of Charles J. Barckley who was from Gibbonsville, Idaho, entered into an agreement to purchase the property. While returning from Idaho to the property he took pneumonia which developed into quick consumption, and Mr. Barckley died at Indio, California a few weeks later. Mr. Barckley planned and began all the real developments that have ever been made on the property.

In 1902 Percy Sharpe, a mining engineer from Los Angeles, sampled the property and from the 36 samples he took he got an average of .835 oz. gold, and ag 6.21 oz.

GEOLOGY:

The geological history of this section has never as yet, as far as I am informed, been inquired into by the United States Geological Survey but in as much as the Tumacacori-Oro Blanco range of mountains are composed of rhyolites, andesites and dacites as well as other geologically recent date porphyries, it is fair to presume that these mountains are one of the results of the evolution which occurred at or near the close of the cretaceous. The general course

of the gold and silver bearing veins also of the various dykes, is a northeast and southeast trend, and the dip northwest. The mineral bearing zone or belt extends from the Austerlitz northwesterly into the desert and southeasterly into Mexico. The width of this particular belt is about 200 feet. Its length, although undeveloped to any particular extent except a short distant both northwest and southeast of the Austerlitz, is probably 40 or 50 miles. Along this gold belt it is worked for the placer gold by both the Mexicans and the Indians.

WOOD, WATER, ETC.:

This district is well watered. There are numerous springs in the various gulches of the range of mountains from which an abundant supply of water can be obtained. The rainfall in this section I am informed, averages 18 inches a year. Timber consists wholly of live oak. A plentiful supply for fuel purposes, can be obtained in the Austerlitz Group and purchased from the reserve, this district being wholly within the Tumacacori Forest Reserve, but all mining timbers and lumber for other purposes must be obtained from elsewhere.

There is an excellent wagon road from Tucson some 80 miles northeast, to the property. There is also a very good road from Nogales, some 45 miles to the eastward, but in its present condition, heavy loads of freight could not be brought over it.

DEVELOPMENT:

Most of the development on this property consists of open cuts exposing large bodies of ore lying in blanket form on the eastern side of the mountain. These ore bodies are for the most part simply large fragments or bodies of ore which have broken off from the ledges and slid down the mountain side. There is a shaft near the western side line of the Austerlitz which has been sunk to a depth of 160 feet. This shaft was sunk evidently for the purpose of catching various ledges upon the Austerlitz-Parallel columns, this group consisting of five claims. This shaft should strike the east parallel vein at a depth of 230 feet. There is also a tunnel known as the Parckley tunnel, 461 feet in length, cutting clear through the mountain. Of this tunnel I will speak more fully later.

The silver in these ores is in the form of chloride, and from long exposure the dumps have been considerably leached by the action of the elements, the fine gold also being carried down to the bottom of the piles. Therefore it is fair to conclude that all the samples taken from the dumps are below the average value of the ore, the samples having been taken, in every instance from the top of the dumps. I would expect that in these dumps the actual value recovered would be equal to, if not in excess of the values shown by the assays taken. I commenced sampling near the extreme south end of the Austerlitz claim very near the top of the mountain.

Sample No. 1. Open cut in the blanket. Blanket about 12 feet thick. Much ore exposed. Sample of ore pile of 12 tons.

No. 2. Open cut in blanket. Thickness of blanket never determined here. Large amount of ore in sight. Sample ore dump of 20 tons.

No. 3. Opening on small spur vein. Vein 20 inches wide. Hole 4 feet square sunk to a depth of about 5 feet.

No. 6. Shaft 35 feet deep, sunk on a cross vein or spur between the main ridge and the west parallel ridge. Said shaft was sunk to a depth of 35 feet. Sample of this dump and second class ore taken from shaft, all the first class ore in this shaft was worked in an arastra and the actual value of the ore from this shaft is unknown to the owner.

No. 7.A. Was taken from a small pile placed near the entrance of this cut.

No. 8. Sample across face of this cross ledge, ledge 3 feet wide.

No. 9. Large open cut. Took sample from fifty tons of unsorted ore. Large showing.

No. 10. Taken from same cut at No. 9. Over 400 tons second class ore. This ore has been closely assorted, is very high grade, and was shipped to the smelters, some shipments running as high as \$158.00 per ton in gold and silver. Lower grade ores were shipped to Arivaca, one lot averaging \$26.75 gold and silver and another lot averaging \$17.67 gold and silver, received and paid for by the Arivaca mill. This ore I am informed, all came out of the 65 foot shaft before mentioned.

No. 11. Sample taken from an old pile of ten tons. The place from which this pile of ore was obtained is unknown, but probably out of the cut before mentioned as Nos. 4 and 5.

No. 12. A sample from a dump of 20 tons; place from which it was taken is unknown. At this place there are a dozen small piles or lots of ore which were taken from the vein at the bottom of the 65-foot shaft by the present owners, the ore being closely assorted, the first class being put into these small piles and the second class being thrown over the dump.

No. 13. Open cut on blanket. Heavy body of sulphate showing underneath the ore. Sampled one pile of 35 tons of these heavy sulphates.

No. 14. Sample pile of 40 tons of unsorted ore taken out above the body of sulphates before mentioned.

No. 15. Open cut on plain known as the Addition. Goodly showing of ore. Sampled 20 ton lot.

No. 16. Sampled open cut on blanket. Plenty of ore showing. Sampled pile of 10 tons.

No. 17. Open cut on blanket of milky white quartz. Sampled lot of 25 tons. This work was done by Clinton Thompson. So far as present owners know, this lot of ore has never been sampled.

No. 18. Is an open cut down on the Addition Claim, about 300 feet from the east side line of the Austerlitz. Very large amount of ore showing. Sampled lot of 100 tons, all second class ore. The ore from this cut was closely assorted, the first class ore being worked in an arastra.

No. 19. An open cut in an alluvial deposit in the bottom of a little draw. In running this cut 50 tons of ore was taken out and piled up on the dump. Considerable ore still shows on the face and sides of the cut.

No. 20. A lot of 60 tons of ore and waste taken out at point 12 on map of the Barclay tunnel.

No. 21. Lot of 100 tons taken from point marked "Upraise" on map of Barclay tunnel.

No. 22. In the summer of 1894, Chas. J. Barclay before mentioned as having made an agreement to purchase this property, started to run a crosscut tunnel through the mountain. This tunnel, either fortunately or unfortunately, as you may wish, as soon as he cut through the surface soil or drift, struck a northeast, southwest fault line. There was both a vertical and lateral movement along this fault line. This fault line is badly for a distance of 50 feet. The lateral movement along this line turned the ores from the northwest, southeast course to a southwest northeast course. The bodies along this fault line are considerably mixed up, being irregular in occurrence, but as a rule, not badly shattered or leached. The throw, so far as I have been able to judge from the surface, is 80 feet. The foot wall side of the fault line, seemingly moved farther westward than the hanging wall side eastward. The first ore struck in this tunnel are at a point 140 feet distant from the portal at the 140 foot station, an upraise was started.

No. 23. Just beyond the upraise a crosscut was run, intersecting the 65 foot shaft at the bottom, 30 feet distant from the tunnel. Two drifts I understand, are run out on ore from the bottom of this shaft. Drifts and shafts are caved in so it was impossible to get into them to examine them. At a point on this crosscut, 12 ft. from the tunnel, another drift has been run a distance of 135 feet. This drift is very irregular in its course, and was evidently run for the purpose of striking a 3 foot ledge which shows on the surface spoken of under No. 6, 7, and 8. If that was the intention of this crosscut it was not run far enough by about 50 or 60 feet. This drift was run during the past winter by T.B. Wilde, of Goldfield, Nevada. Coming back to the tunnel, a distance of 39 feet further along the tunnel Chas. J. Barclay ran a 30 foot crosscut in the hanging wall of the fault, cutting the top of a very large ore shute. The appearance of the ore is the same as that which appears in the upraise and is evidently a part of the same ore body and separated from it during the faulting which took place along the fault fissures.

Sample No. 23 was taken 18 feet in length across the top of this ore shute.

No. 24. The tunnel had been driven 69 feet further at the time of Barclay's death. Later at this point a crosscut had run to the left into the footwall. The footwall of the fault is a dacite. Evidently the intrusion of this dacite dyke has not as yet been determined. Its presence is only indicated upon the surface by boulders lying in the soil.

Going back to the point at which the Barclay work on the tunnel was stopped, a turn was made at nearly right angles to the course of the drifts and at a point ten feet farther on the body is badly broken and mixed ore was encountered, which continues for a distance of 11 feet. From this point the drift is continued on as a crosscut for 45 feet, the usual signs of ore in the tunnel again appear all along the crosscut. Going back again to the station 21 ft. to the right of the face of the tunnel where Barclay stopped work, the general course of the tunnel was changed somewhat and driven forward to the surface on the western side of the hill. At a point marked 12 on the map, ore was struck on the right hand side of the tunnel, a drift was run off at an acute angle to the right for a distance of 25 feet all the way through. The large sample was taken from the sides and top of this ore near the middle of the drift.

No. 25. Commencing at the same point marked 12 on the plat another drift was run off at right angles from the tunnel for a distance of 15 feet, at which place is cut completely through the ore. A large sample from the sides, top and bottom was taken in this drift 6 feet back from the face.

No. 26. From point 12 on the plat the ore is exposed on the right side of the tunnel for a distance of 40 feet at a point midway between point 12 on the plat and the end of this ore shute, a large sample was taken. The tunnel has been driven ahead from point 12 on the map a distance of 140 feet to daylight on the western side of the hill.

No. 27. Sampled 150 tons of ore lying on the hillside about 200 feet south of the north end land of the parallel plans.

No. 28. Sampled 50 tons of refuse or waste lying below an open cut upon the parallel near the north and center.

No. 29. Sampled second class ore and waste of 300 tons taken from the open cut slightly east of the north and center of the Parallel claim.

No. 30. Sampled 400 tons second class ore and waste taken from an open cut east from No. 29.

No. 31. Sampled 200 tons of second class ore and waste taken from an open cut about 50 ft. NE from No. 30.

No. 32. Sampled 300 tons of second class ore taken from the same open cut as No. 31.

No. 33. Sampled 8 tons of ore taken from the bed immediately under or down the side of the hill from No. 31.

No. 34. Sampled 50 tons of unassorted ore taken from the slide.

No. 35. Open cut. Large amount of ore showing, being evidently in place. One wall showing out. Sampled 25 ton lot of ore.

No. 36. Large open excavation. Thousands of tons of ore have been removed. Opened by the Fathers for its rich gold and silver ores. This excavation has slid in so badly that the bottom of the work cannot be seen. There is still considerable ore left showing above the debris which covers the bottom of this excavation. Sampled a 75 ton lot, evidently second class ore which I found lying or piled near the outer edge of the dump.

No. 37. Sampled another hundred ton lot lying near No. 36. It is about the same character as No. 36.

No. 38. Sampled another pile of 150 tons of the same character as No. 36 and 37.

This excavation shows the veins to be very wide, how wide it is not possible at present to determine. Only the hanging wall is exposed, vein evidently in place.

A deep gulch separates the Austerlitz from the Ragnaroc Mining Claim which adjoins the Austerlitz on its northwest end. The ore on the Ragnaroc comes down the side of the gulch nearly to the Austerlitz and in fact the vein has been opened upon the line separating the two claims. Upon the Ragnaroc the width and dip of the vein or ledge taken at right angles to the footwall is a little over 60 feet while the dip is about 55 degrees east.

No. 39. About 100 feet southwest of the large excavation before mentioned a ledge has been opened exposing a footwall. The ore here is apparently in place and evidently the footwall of the ledge. Sampled lot of 25 tons.

No. 40. Sampled lot of 60 tons which was picked up out of the bed of the creek below No. 33. Nothing is known as to whom or by whom this ore was piled. It was evidently put aside for the purpose of working it through an arastra.

No. 41. Sampled 25 tons taken from an open cut below No. 40.

No. 42. Large open cut or excavation upon the north bank of the gulch. Very large amount of ore shown in and around the opening. Sampled 400 ton lot. Second class ore.

No. 43. Ore taken from the bottom of the gulch. The recent rains have stripped the bottom of the gulch at this place immediately below No. 42 exposing the ore along the bottom of the gulch for a distance of 75 feet. How much farther down the gulch it extends

cannot be determined accurately but it is probably less than 20 feet further. Near the lower side of this exposed ore body Charles J. Barclay sunk a hole in the ore to a depth of 10 feet. This exposure at the bottom of the gulch is very important as it is the lowest point upon either the Austerlitz or the Ragnaroc that ore can be seen. Sampled a lot of 115 tons taken from the bottom of the gulch.

No. 44. Sampled a lot of 25 tons taken from an open cut on the hillside about 75 feet northwest of No. 42.

No. 45. Sampled a lot of 50 tons taken from an opening on the hillside immediately upon the line between the Austerlitz and Ragnaroc.

No. 46. Sampled lot of 500 tons taken from an opening made on the ledge upon the Austerlitz just below the line between the two claims. This work was done a very long time ago.

No. 47. Sampled a lot of 75 tons. This lot is a kind of landmark, it having been known to have been there at least fifty years ago. It was evidently taken out by the Spaniards who worked an arastra. The place from which it was taken is unknown but it was probably taken from an opening in No. 46.

	Ounces per ton		Value per ton of 2000 pounds		
	Au	Ag	Au	Ag	Total
1	0.76	6.1	\$15.20	\$ 3.97	\$19.17
2	0.28	5.4	5.60	3.57	9.11
3	0.16	2.4	3.20	1.56	4.76
4	0.18	4.3	3.60	2.80	5.40
5	0.06	9.4	1.20	-	1.20
6	0.08	Trace	1.60	-	1.60
7	1.45	7.4	29.60	4.81	34.41
7 A.	0.16	2.3	3.20	1.50	4.70
8	0.08	7.5	1.60	4.88	6.48
9	0.68	3.6	13.60	2.34	15.94
10	0.06	1.4	1.20	.91	2.11
11	0.28	2.1	5.60	-	6.97
12	0.18	3.6	3.60	2.34	5.94
13	0.10	Trace	2.00	-	2.00
14	0.56	6.3	11.20	4.10	15.30
15	0.12	1.5	2.40	.98	3.38
16	0.24	1.7	4.80	.91	5.71
17	0.18	0.7	3.60	-	3.60
18	0.18	0.7	3.60	-	3.60
19	1.76	6.3	35.20	4.10	39.30
20	0.44	4.0	8.80	3.25	12.05
21	0.16	1.2	3.20	.78	3.98
22	0.07	0.8	1.40	-	1.40
23	0.08	2.1	1.60	1.37	2.97
24	0.64	11.6	12.80	7.54	20.34
25	Lost				

	Ounces per ton		Value per ton of 2000 pounds		
	Au	Ag	Au	Ag	Total
26	0.16	7.8	\$ 3.20	\$ 5.07	\$ 8.27
27	0.38	Trace	7.80	-	7.60
28	0.24	Trace	4.80	-	4.80
29	0.20	Trace	4.00	-	4.00
30	0.14	Trace	2.80	-	2.80
31	0.04	Trace	.80	-	.80
32	0.16	Trace	3.20	-	3.20
33	0.16	5.8	3.20	3.77	6.97
34	0.14	17.2	2.80	11.18	13.98
35	0.28	3.9	5.60	2.54	5.14
36	0.40	5.0	8.00	3.80	11.80
37	0.32	8.4	6.40	5.46	11.86
38	0.10	6.1	2.00	3.97	5.97
39	0.08	2.0	1.60	1.30	2.90
40	0.18	1.2	3.60	.78	4.38
41	0.16	0.6	3.20	-	3.20
42	0.14	Trace	2.80	-	2.80
43	0.17	1.5	3.4	.98	4.38
44	0.22	4.0	4.40	2.69	7.00
45	0.36	4.6	7.20	2.99	10.19
46	0.16	3.2	3.20	2.08	5.28
47	0.16	2.5	3.20	1.63	4.83

NOTE: Above values on basis of Gold at \$20 per ounce.

This table was compiled from lots of ores which according to assays are unmistakably ores:

No.	Amount	Value per ton	Total Value
1	12	\$ 19.17	\$ 230.04
2	20	9.11	182.20
4	75	5.40	405.00
7	50	34.41	1,720.50
7	150	4.70	705.00
9	50	15.94	797.00
11	10	6.97	69.70
12	20	5.94	118.80
14	40	15.30	612.00
15	20	3.38	67.60
16	50	5.71	283.50
17	25	3.60	90.00
18	100	3.60	360.00
19	50	39.30	1,965.00
20	60	12.95	732.00
21	100	3.98	398.00
27	150	5.60	1,140.00
28	50	4.80	240.00
29	300	4.00	1,200.00
32	300	3.20	960.00

No.	Amount	Value per ton	Total value
33	8	\$ 6.97	\$ 56.76
34	150	13.98	2,097.00
35	25	8.14	203.50
36	75	11.80	885.00
37	100	11.86	1,185.00
38	150	5.97	895.50
40	60	4.38	262.80
41	25	3.20	80.00
43	115	4.38	503.70
44	25	7.00	175.00
45	50	10.19	509.50
46	500	5.28	2,640.00
47	25	4.83	120.75
	<hr/> 2,940		<hr/> \$21,893.85

Average value per ton of ore on dumps ready for milling \$7.45. Average of, assays per ton, \$9.28. Lots No. 1, 7, 14, 19, 20 and 34 were unsorted ores. Average value per ton of these unsorted ores \$20.32. In the case of Lots No. 5 and 6, I was informed that waste had been put upon a lot of good ore. No. 31 is as shown by assays, to be the only real waste dump on the property. Nos. 10, 13, 22, 23, 30, 39 and 42 should be resampled, as I am of the opinion that they are real ores.

The showing made is really a remarkable one when we take into consideration the fact that with the exception of six lots, viz: Nos. 1, 7, 14, 19, 20 and 34, every lot sampled were thrown out for waste. Further, you must remember that with the exception of the lots of unsorted ore, these dumps have been exposed to the elements for many years, some of them for more than half a century.

From the creek bottom ten thousand or more tons (how much more cannot be determined at present) that will, according to the assay average over \$5.00 per ton. At least seven thousand tons of ore of an average value of \$14.00 per ton can be taken out from above the tunnel level. On the eastern side of the hill, some ten thousand or more tons can be gotten off of the surface that should average above \$15.00 per ton. Exploration alone can determine the tonnage to be gotten off from the property. Exploration will also show the true values of these ores, which will probably average considerably higher than the average shown by the samples which I have taken. Mr. Barckley, who had the best opportunity to determine the true value of this property, as he spent a great deal more time taking his measurements to make his estimate of the tonnage and spent several months in sampling and testing the ores from the various showings, placed the surface tonnage at approximately one hundred thousand tons with an average value of \$7.50. I was inclined to accept his estimates as being more nearly accurate than my own.

In regard to the handling of this property, the deal for the property having been closed upon the receipt of analysis and assays, depends a great deal upon the scale upon which it is desired to operate the property. It will take at least \$5000.00 to put the property in good condition. It will take \$7500.00 more to put a ten stamp mill upon the property. Would advise as soon as convenient to do so the erection of a cyanide plant for the purpose of handling the large amount of ores exposed in the bottom of the gulch. This will cost about \$5000.00 more. At least \$7500.00 more should be set aside as a kind of an emergency fund. This amount, \$25,000.00 I believe to be amply sufficient with which to commence operations. The entire plant should be enlarged owing to the profits obtained from the property. A deep tunnel should be commenced at as low a point as practicable, which will be down near the forks of the creek. A tunnel started at this point will encounter the eastern ledge at about one hundred and fifty feet distant from the portal. This tunnel should be continued on not only to the main ledge, but to the western parallel ledge. It should also turn and follow the main ledge southward into the hill. A tunnel such as I have outlined, fifteen hundred feet in length, would give a vertical depth from the ledge of some five hundred feet. It would also have the advantage of having been driven for at least twelve hundred feet of its length, upon the main ledge. Such a tunnel would make it possible to handle all cheaply and rapidly. It would also develop the character of the ores upon depth and would decide the kind of plant necessary to operate the property upon a large scale. Of course, if it should be desired to work this property upon a larger scale, these estimates would have to be proportionately increased.

The deepest working upon this vein is upon the Oro Blanco property. A depth of 265 feet has been attained upon the property and the ores at the bottom of the shaft are still free milling and of higher values than were obtained anywhere else upon the property. The ledge is also quite as strong upon the Oro Blanco as upon the Austerlitz.

With a careful and intelligent management, the Austerlitz will make one of the largest gold mines in the United States.

(Signed) F. B. SCHERMEHORN

El Paso, Texas
Sept. 10, 1907

Copied:AJ
Phoenix
Apr. 15/63

M. MILTON

May 2, 1914

Sample #1.	0.04 oz.	Au.	\$0.80	Au.	-	0.4 oz.	Ag.
2.	0.03 oz.	Au.	\$0.60	Au.	-	0.8 oz.	Ag.
3.	0.10 oz.	Au.	\$2.00	Au.	-	0.4 oz.	Ag.
4.	2.88 oz.	Au.	\$57.60	Au.	-	1.1 oz.	Ag.
5.	0.16 oz.	Au.	3.20	Au.	-	0.6 oz.	Ag.
6.	0.39 oz.	Au.	7.80	Au.	-	0.4 oz.	Ag.
7.	0.12 oz.	Au.	2.40	Au.	-	0.4 oz.	Ag.
Cuby Hole	0.10 oz.	Au.	2.00	Au.	-	0.3 oz.	Ag.

July 11-1914

Sample #5.	0.03 oz.	Au.	\$0.60	Au.	-	0.2 oz.	Ag.
6.	0.03 oz.	Au.	\$0.60	Au.	-	0.2 oz.	Ag.
7.	0.09 oz.	Au.	\$1.80	Au.	-	0.3 oz.	Ag.
8.	0.05 oz.	Au.	\$1.00	Au.	-	0.2 oz.	Ag.
9.	0.07 oz.	Au.	\$1.40	Au.	-	0.3 oz.	Ag.
10.	0.02 oz.	Au.	\$0.40	Au.	-	0.1 oz.	Ag.
11.	0.64 oz.	Au.	\$13.80	Au.	-	0.9 oz.	Ag.

July 18th, 1914

Sample # 11.	0.01 oz.	Au.	\$0.20	Au.		0.2 oz.	Ag.
12.	0.05 oz.	Au.	\$1.00	Au.		0.2 oz.	Ag.
13.	0.01 oz.	Au.	\$0.20	Au.		0.1 oz.	Ag.
14.	0.02 oz.	Au.	\$0.40	Au.		0.1 oz.	Ag.
15.	0.30 oz.	Au.	\$6.00	Au.		0.7 oz.	Ag.

July 25, 1914

Sample #17.	0.02 oz.	Au.	\$0.40	Au.		0.4 oz.	Ag.
18.	0.02 oz.	Au.	\$0.40	Au.		0.2 oz.	Ag.
19.	0.12 oz.	Au.	\$2.40	Au.		0.3 oz.	Ag.
20.	Traces	Au.	- - -			0.1 oz.	Ag.
21.	0.25 oz.	Au.	\$5.00	Au.		0.6 oz.	Ag.
22.	0.01 oz.	Au.	\$0.20	Au.		0.1 oz.	Ag.

Aug. 3rd, 1914

Sample #23	0.02 oz.	Au.	\$0.40	Au.		0.8 oz.	Ag.
24	0.11 oz.	Au.	\$2.20	Au.		0.4 oz.	Ag.
25	0.25 oz.	Au.	\$5.00	Au.		0.6 oz.	Ag.
26	0.01 oz.	Au.	\$0.20	Au.		0.2 oz.	Ag.
27	0.10 oz.	Au.	\$2.00	Au.		0.6 oz.	Ag.
28	0.03 oz.	Au.	\$0.60	Au.		0.4 oz.	Ag.
29	0.01 oz.	Au.	\$0.20	Au.		0.5 oz.	Ag.

Aug. 24th, 1914

Sample # 37	0.15 oz.	Au.	\$3.00	Au.		0.3 oz.	Ag.
38	0.04 oz.	Au.	\$0.80	Au.		0.1 oz.	Ag.
39	0.18 oz.	Au.	\$3.60	Au.		0.1 oz.	Ag.
40	0.28 oz.	Au.	\$5.60	Au.		0.2 oz.	Ag.
41	0.26 oz.	Au.	\$5.20	Au.		0.1 oz.	Ag.
42	0.05 oz.	Au.	\$1.00	Au.		0.3 oz.	Ag.

M. Milton

Aug. 28th. 1914

Sample #43. 0.01 oz. Au. \$0.20 Au. - 0.4 oz. Ag
44. 0.19 oz. Au. \$3.80 Au. - 0.2 oz. Ag.

Nov. 9- 1914

Sample #1	0.64 oz. Au.	\$12.80	Au.	10.8 oz. Ag
2	0.35 oz. Au.	\$7.00	Au.	7.9 oz. Ag
3	0.12 oz. Au.	\$2.40	Au.	10.4 oz. Ag.
4	0.57 oz. Au.	\$11.40	Au.	9.6 oz. Ag.
5	0.92 oz. Au.	\$18.40	Au.	8.7 oz. Ag.
6	0.35 oz. Au.	7.00	Au.	7.6 oz. Ag.
7	0.30 oz. Au.	6.00	Au.	7.7 oz. Ag

325

627

Nov. 9th. 1914

SPECIAL 3.08 oz. Au. \$61.60 Au. - 160.1 oz. Ag

Nov. 27th. 1914

1.14 oz. Au. \$22.80 Au. - 5.3 oz. Ag.

Jan. 20. 1915

0.01 oz. Au. \$0.20 Au. - - 0.5 oz. Ag.

Log of Diamond Drill Hole #25

May 6 to June 20, 1935.

Located on the Republic Claim of the Switzerland Group of
J. S. Andrews.

(ON TOP OF AUSTERLITZ MT.)

Collar of hole at 3079 ± latitude 330.5 N Elevation 4381
Strike South Dip 3 45° from horizontal. Slope depth
403 feet. Vertical depth of bottom 342.3 feet.

0' - 12'	Andesite. Decomposed with Kaolin and Gouge.
12' - 12'9"	9" Barren Quartz.
12'9" - 41'0"	Andesite. Weathered, with manganese staining. Contact of Andesite with side winder type Diorite at 41'4". Contact zone from 40' to 45' shows movement with brecciation. Gouge along line of contact but no values.
41' - 108'	Massive diorite (S.W. type) (side winder)
108' - 128'	Massive diorite (S.W. type)
128' - 136'	Fault Zone, Diorite much shattered. Breccia.
136' - 201'	Massive diorite (Gray)
201' - 205'	Contact zone with Andesite. Structures show movement along contact and inclusions of andesite in the diorite. No quartz or mineralization.
205' - 278'	Massive andesite. Shows flow structure.
278' - 279'	Diorite Sill (S.W. type) No quartz.
279' - 409'	Massive andesite. Slip seams at 400' - 405' Rock foliated and crushed.
409' - 444'	Fault zone at 444' Deuterie pyrite. No quartz.
444' - 481'	Massive Andesite.
481' - 493'	Massive Andesite.

Bottom of Hole.

Note. Found no ore on vein matter worth having an assay made of. (EDM)

Log of Diamond Drill Hole #27
July 10, 1935

(200' SO. OF CAMP HUIS SHAFT)

0'0" - 36'6"	Sail - Scree and debris.
36'6" - 37'0"	Quartz stringer. No values.
37'0" - 45'0"	Fractured S.W. diorite.
45'0" - 67'0"	Massive sidewinder diorite.
67'0" - 75'2"	Massive diorite with small quartz seams. No values.
75'2" - 82'0"	Red andesite 8" stringer of quartz in andesite at 82' - Low values.
82'0" - 86'0"	Gray type andesite. No values.
86'0" - 93'0"	Some vein matter of narrow 1/8" to 1" veins of quartz cutting silicified andesite. Values low, some Zn-Pb and Cu FeS. The vein has no true walls at this point. The mineralization has followed a brecciated zone in andesite.
93'0" - 99'3"	Andesite, partly replaced by quartz and carrying narrow stringers of quartz and calcite.
99'3" - 137'0"	Side winder diorite.
137'0" - 140'6"	Side winder type diorite. Broken and kaolinized.
140'6" - 164'6"	Andesite. Slight mineralization at 146'4". Andesite shattered and decomposed. Some calcite.
164'6" - 177'0"	Side winder diorite. Well decomposed.
177'0" - 179'0"	Andesite and diorite relict structure.
179'0" - 189'0"	Side winder diorite.
189'0" - 195'0"	Andesite shattered with much calcite and some pyrite. No values.
195'0" - 201'0"	Massive andesite.

BOTTOM OF HOLE

A S S A Y S.

	<u>Au</u>	<u>Ag</u>	<u>Core Recovery</u>
86'6" - 87'6"	NF	0.1	90.0%
87'6" - 88'6"	T	0.1	70.0%
88'6" - 89'6"	0.06	0.9	70.0%
89'6" - 90'6"	0.10	2.2	60.0%
90'6" - 91'6"	T	0.8	60.0%
91'6" - 92'6"	NF	NF	60.0%
92'6" - 93'6"	0.015	0.6	60.0%
93'6" - 97'0"	0.05	1.4	25.0%
97'6" - 97'11"	0.08	1.3	25.0%
97'11" - 99'3"	0.03	1.1	40.0%

Collar of Hole at 10,553.9 W Latitude 1896.5 N Elevation 4455.8
Strike west, Dip W 70° from horizontal. Slope depth 201 feet.
Vertical depth 189 feet.

Log of Diamond Drill Hole #28
August and September 1935

(ON CHINA CLAIM)

Collar of Hole at 7572 W 1361 N Elevation 4532
Strike S 40° W Dip 77° from Horizontal. Slope depth
293 feet. Vertical depth of bottom 285 feet.

0'	-	11'	Sedimentaries and scree.
11'	-	22'	Decomposed diorite, talc and clays.
22'	-	33'	Hard massive gray diorite (Felsitic)
33'	-	57'	Ditto, with a few talc slip seams.
57'	-	88'	Hard massive gray diorite (Aphumatic)
88'	-	94'	Shattered zone, felsitic blue diorite.
94'	-	123'	Hard blue diorite.
123'	-	149'	Fault zone. Slickensides and mixed gray and blue diorite, some calcite, a minimum of quartz with deuteric pyrite. No vein matter of commercial metal minerals.
149'	-	165'	Hard gray diorite.
165'	-	189'	Highly altered gray diorite, much calcite and a few narrow (2") seams of barren massive quartz. No values.
189'	-	198'	Brecciated fusion zone. Rock of an indistinct and variable character. Relief structure.
198'	-	200'	Kaolinized material. No vein matter.
200'	-	205'	Slicified diorite. Some calcite and pyrite. No vein structure or values.
205'	-	207'	No core.
207'	-	208'	Contact, diorite on devitrified andesite.
208'	-	212'	Mostly devitrified andesite with thin sills of altered diorite.
212'	-	222'	Blue diorite. Kaolinized.
222'	-	223'	No core (Talc?)
223'	-	235'	Brecciated andesite.
235'	-	249'	Massive andesite.
249'	-	251'	Kaolinized and well altered andesite, some pyrites, no other metal minerals.
251'	-	255'	Andesite, massive.
256'	-	256'6"	No core.
256'6"	-	262'	Shattered andesite.
262'	-	264'	No core.
264'	-	281'6"	Massive andesite.
281'6"	-	282'	6" of barren quartz.
282'	-	284'	No core.
284'	-	286'	Shattered andesite.
286'	-	293'	Massive andesite.

Bottom of Hole.

No vein structure or values were found and no assays made.

AUSTERLITZ MINE PROPERTY

Analysis of Sample Records.

M. Milton Samples - Taken in 1914

46 samples - Average: Au 0.23 and Ag 1.53 Oz per ton

Milton gives no location or width or otherwise states what these samples represent. Presumably they were taken on development headings and represent the values contained within the shear and fracture elements which were explored for ore. These samples are practically worthless for determining the mineral content of the mineralized silica.

Schermerhorn Samples- Taken in 1907.

46 samples and assays recorded, 9 of which were cut on narrow vein sections and 37 samples were of mined ore which was ready for mill treatment.

37 samples representing 4061 tons of ore:

Weighted gold content 0.158 oz per ton
Weighted silver content 1.86 oz per ton

Value:	Gold at \$35. per oz	-----	\$5.53
	Silver at 90¢ " "		<u>1.67</u>
	Average value of 4061 tons		\$7.20 per ton

Schermerhorn samples were taken from mined ore ready for mill treatment. He eliminated some of the lower grade ore to arrive at an average value of 0.29 oz Au and 1.6 Oz Ag which applied to 2940 tons giving it a gross value as of that date of \$7.45 per ton. These samples give little or no clue to the value of the silica and are representative only of the narrow mineralized fractures which were developed within the silica beds.

Gregory Samples -- Taken June 1935.

55 samples out on the Crawford vein at and above the tunnel level.

Weighted average of 55 samples:

$\frac{359.7}{55}$ equals 6.54 ft average width of vein sampled.

$\frac{30.09}{259.7}$ equals 0.083 oz average gold content

$\frac{2175.5}{359.7}$ equals 6.04 oz average silver content

Value:	Gold at \$35. per oz	\$2.905
	Silver 90¢ per oz	<u>5.436</u>
	Total value Au- Ag	\$8.341 average value per ton ore.

Weighted value of 43 samples omitting samples 86 -97 on the SW side of the big Crawford stope/

$\frac{206.7}{43}$ equals 4.57 ft average width of vein sampled.

$\frac{15.72}{206.7}$ equals 0.066 oz average gold content per ton

$\frac{826.4}{206.7}$ equals 4.0 oz average silver content per ton

Value: 43 samples

Gold at \$35. per oz -----	\$2.31	per ton
Silver at 90¢ " " "	3.60	" "
Total value gold and silver	<u>\$5.91</u>	average value per ton.

Weighted average of 12 samples Nos 86 to 97 taken on the SW side of the big Crawford stope.

$\frac{153}{12}$ equals 12.65 ft average width of samples cut

$\frac{16.37}{153}$ equals 0.107 oz gold per ton

$\frac{1349.1}{153}$ equals 8.8 oz silver per ton

Value: Gold at 35 per oz -----	\$3.745	per ton
Silver at 90¢ per oz	7.92	" "
Total weighted average value	<u>\$11.665</u>	per ton

The Crawford vein contains a variable amount of copper which was not assayed in any of the samples. No value can be placed upon the copper content until a smelter contract is obtained. Under the Phelps-Dodge contract 5 pounds is deductible before any copper is paid for. Shipments from the big stope contained about 10 pounds of copper per ton but the copper content is high in this section of the vein and in much of the silica the copper content is too low to consider it of any value even under a more favorable contract. Some pay should be received for copper if the higher grade copper ore is shipped separately and not diluted with the low copper ore.

Arthur Jacobs Samples- Taken Jan., 1959.

Big Crawford stope - 6 samples:

Average width of sample -	5.7	ft
Average gold content Weighted	0.109	oz per ton
Average silver content "	8.2	oz " "

Value:	Gold at \$35. per oz	\$3.815	per ton
	Silver at 90¢ per oz	7.38	" "
	Average weighted value	\$11.20	per ton

Small Stope above Crawford Tunnel:

Average gold content	0.045 oz per ton
Average silver "	1.85 Oz per ton

E. A. Stone Samples - Taken May- June, 1960

95 level in Crawford Shaft:	Average gold content	0.015 oz per ton
	Average silver "	0.6 oz per ton

copper content; 0.46% in NW drift- 0.03% in south drift.

Flat silica beds on Top- 5 samples of mineralized silica.

Average gold content	0.106 oz per ton
Average silver content	1.35 oz per ton

Value:	Gold at \$35. per oz	-----	\$3.71
	Silver at 90¢ per oz		1.21
	Total average value		<u>\$ 4.92</u> per ton

Samples 6 to 15- Mineralized silica outcrops and dumps on the slope SE of the Crawford shaft.

Average gold content	- 0.02 per ton
Average silver "	0.54 oz per ton

Sample No 16- Mineralized quartz from cut 250 NW from Crawford portal.

Gold	0.09 oz per ton
Silver	5.15 oz per ton

Samples 20-22- From the mineralized silica at Mineral point including the ore piles stacked on the dumps.

Average gold content	- 0.03 oz per ton
Average Silver content	1.1 oz per ton

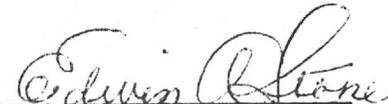
Stone samples were taken in the mineralized silica beds and from mineralized rejects remaining on the dumps after the high grade ore had been sorted out. Some of these dumps were presumably set aside for ore and is a part of the tonnage which was eliminated by Shermerhorn as too low grade for mill rock. It is apparent from these samples that the silica-pyrite beds do not carry enough value to be mined and shipped for silica flux. Also that mineralization in the fractures is insufficient to bring the silica beds up to a grade that can be profitably mined.

Comments:

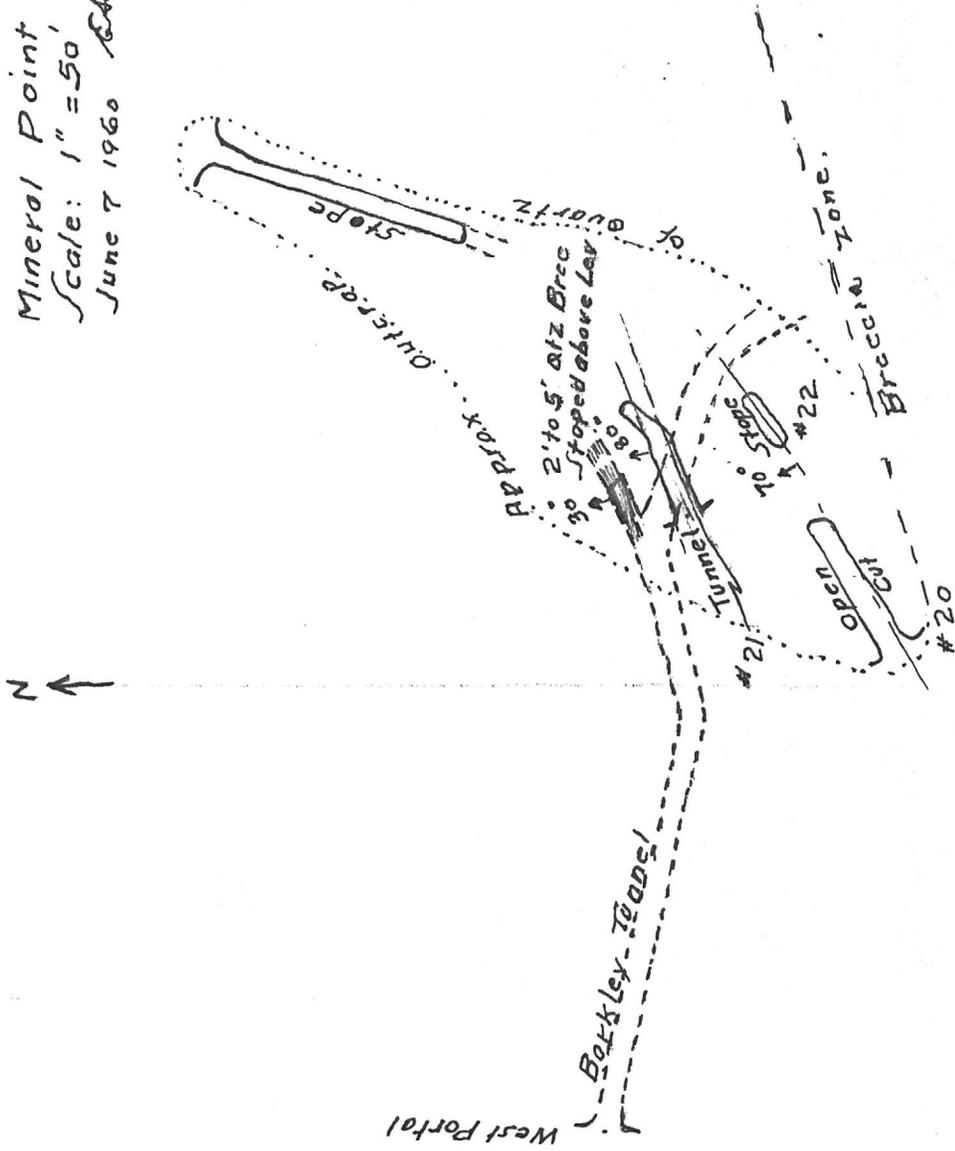
The probability of a profitable mining operation was based entirely on the Crawford Vein and from assays and reports covering

this part of the property. The Crawford is a well defined vein occurring in a monzonite sill within the Comanche formation of Cretaceous age and in all probability will be quite persistent. In contrast, the other so called silica veins are replacement of volcanic beds by quartz along rolls and flexures. The gold and silver was introduced into these beds along minor fractures. Some of these fractures may play an important roll in localizing the ore values in the Crawford vein and may even be profitably mined adjacent to the Crawford vein.

1. Gregory samples on the Crawford vein are the only reliable and adequate information available, excepting later samples taken for checks. If vein widths and values given by him persist on dip to the shaft, 400 ft east, there is approximately 52,000 tons of silica ore in this section of the property containing an average value in gold and silver of \$8.34 per ton.
2. The Crawford shaft which was reported to have cut the Crawford vein, showing a width of 10 to 15 ft of silica containing better than the average values given by Crawford was an extremely important factor in planning a mining operation. It supposedly achieved two purposes:
 - (a) To prove the continuity of the vein on dip.
 - (b) To furnish access to the orebody at a low capital cost and permit almost immediate production.Now, that it is known that the shaft did not cut the vein, and as far as can be determined by sections, will have to be deepened 50 ft, the capital cost will be increased at least \$10,000.00 in order to get into production. This will bring the initial capital cost up to about 50¢ per ton on ore that is already marginal.
3. The Austerlitz Mine is of chief interest for its gold and silver content. If the silica ore will pay its way this will permit prospecting for the highgrade ore shoots at no cost. Other localizations of high gold-silver ore undoubtedly occur within this deposit but it will not be feasible to explore them without the aid of returns from silica shipments.
4. The only alternative, now, is to drill two holes, more or less, in the course of the examination. One should be drilled near the shaft in order to determine the depth of the vein at this point together with its width and grade. When this information is obtained the whole program can be reassessed. Until this data is available, no accurate appraisal of the orebody can be made and it will be unadvisable to undertake any preparations for opening the shaft and preparing the orebody for ore extraction.

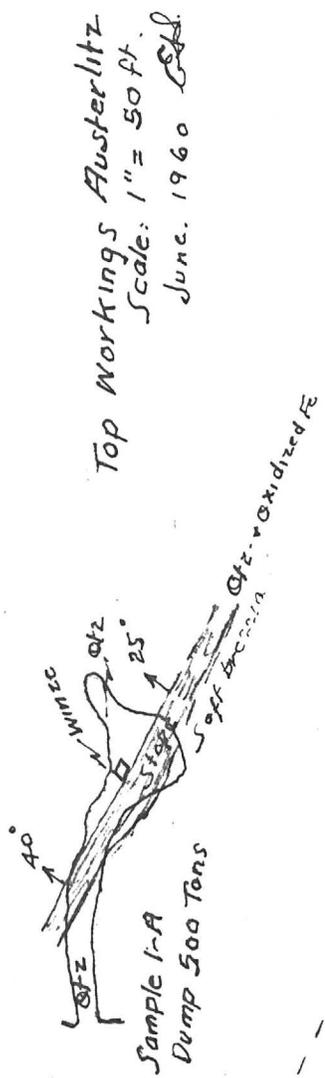

Edwin A. Stone

Mineral Point
 Scale: 1" = 50'
 June 7 1960 *EAH*



Sample No 20 - Ore Pile from Cut
 21 - Quartz from Tunnel
 22 - Quartz from Stopes

N



Top Workings Austerlitz
 Scale: 1" = 50 ft.
 June, 1960

Front of Silicious Zone

Qtz open cut
 Sample 2-A
 Qtz ore pile

Sample 3-A
 100 Ton Ore

Sample 4-A
 Qtz from Shafts + Winze

Sample No 1-A - 500 Ton Silicious Material from Shaft + Winze
 2-A - Quartz From Open Cut
 3-A - Ore Pile 100 Tons ±
 4-A - Qtz from various Shafts + Winze

WINZE
 RC

MEMORANDUM TO:

NORTH COLDSTREAM MINES LTD.
D. W. KNIGHT
P. S. CROSS
G. D. PATTISON
R. D. BELL
F. C. KNIGHT
M. ZUROWSKI
W. W. WEBER

VENDORS AND PARTNERS

SUBJECT:

AUSTERLITZ GROUP, Au-Ag PROSPECT
ORO BLANCO DISTRICT, SANTA CRUZ
COUNTY, STATE OF ARIZONA, U.S.A.

FILE REFERENCE:

SANTA CRUZ COUNTY, ARIZONA, U.S.A.

REFERENCES:

- (i) Prel. Report, F. C. Knight, March 12, 1968
- (ii) Geological Map 'Pima and Santa Cruz Counties'
Arizona Bureau of Mines, University of
Arizona, Tucson.
- (iii) Topographic Map 'Oro Blanco District' Arizona
U. S. Dept. of Interior, Geological Survey,
Washington 25, D. C. (1941-42)
- (iv) Appended report 'Austerlitz Group of Mines'
F. S. Schermehorn - 1907.

PRESENTED BY:

LARRY DRAKE AND PARTNERS
3934 N. FONTANA, TUCSON, ARIZONA.
TEL. 602 - 887 - 6152

OWNER:

HORTON NOON,
BOX 148, PATAGONIA RD.,
NOGALES, ARIZONA.

DATE OF EXAMINATION:

MARCH 20 - 29th 1968

DATE:

APRIL 5, 1968

SUMMARY

The Austerlitz group is located in T22S (Twp.) Ranges 10E and 11E, Sections 31 and 36, T23S (Twp.) Ranges 10E and 11E, Sections 1 and 6, Oro Blanco District, Santa Cruz County, State of Arizona. The patented claims have been in the Noon family since 1870, the time of the major activity in the area.

There have been sporadic efforts to explore the group with the most recent efforts in 1963. Casing for a single drill hole was noted 100 feet south of the Barkley Tunnel. It was deemed unsafe to examine the old tunnels, Horton, Barkley and Crawford driven under the Austerlitz exposures.

The extensive old workings, pits and surface exposures were mapped, examined and sampled. A total of 75 chip samples were taken in selected areas. A rude elevation control was established in conjunction with the tape and compass survey.

The geological survey outlined the area of the favourable rhyolitic horizon of this silicified, brecciated host rock. The extent of the exposures was considerable and suggested side hill gouging and decapping could effectively remove considerable tonnage if this horizon was ore. Sampling unfortunately indicated the gold and silver values were present only in payable quantities in the fissure veins of limited real extent, thus reducing the prospect to the status of minor tonnage and limited grade; of interest to a small leaser only.

The Austerlitz group therefore does not warrant our further consideration and it is recommended the prospect be deemed unsuitable to our requirements.

Report on the Austerlitz Group of Gold-Silver Claims, Oro Blanco District, Santa Cruz County, State of Arizona, USA.

Location and Access

The Austerlitz group of claims comprises presently a contiguous rectangular group of 46 claims (3 patented and 43 unpatented), located in the Oro Blanco district, Santa Cruz County, Arizona, U.S.A. The patented claims Ragnarok West, Ragnarok Mine, and Ninety-Five Mine are described in U.S. Mineral Survey 3283. The unpatented claims comprise the Central No. 1, Kimberley Addition, John J, Terry, Austerlitz, Switzerland, Gilroy and Cecile 1-35 inc.

The main showings and workings are located in Township T22S, Ranges 10E and 11E, adjoining Sections 31 and 36, and Township T23S, Ranges 10E and 11E, adjoining sections 1 and 6.

The Austerlitz group lies on the north end of a belt extending southerly for eight miles and which includes the former producers, the Margarita, Old Glory, Warsaw and Oro Fino Mines. Test pits, prospects and working areas in this length number over 100.

The above group is located about 10 miles south and slightly east of the village of Arrivaca, a point 25 miles west of Amado on U.S. 89. Amado is 37 miles due south of Tucson. Access from Arrivaca is via secondary gravel road.

The prospect is within the Coronada National Forest and as such, is federal land subject to federal regulations. A claim group plan is attached to the Knight Report.

Rail, Power, Water, Timber

The nearest high tension power line and railhead are located at Calabasas on U.S. 89, some 15 miles due east of the property.

Water is not plentiful but local springs are adequate for exploration purposes. Mill supplies would require drilling with success reasonably assured. The only trees on site are scrub oak.

Labour in the district is largely of Mexican extraction, of fair to good quality, and moderate availability.

There are no buildings or equipment presently remaining on the site.

Historical and Previous Work

This section is adequately covered to 1907 in the appended Schermehorn report. More recent exploratory attempts have been mainly small leasers, with little effective effort.

A single drill hole casing (140 feet reported depth) is collared in rhyolite near the base, 100 feet south of the Barkley Tunnel.

An underground plan of the Austerlitz veins to accompany the Schermehorn report was available for inspection only in regard to the stopes in the Austerlitz claim. This sketch indicated stoping in the Austerlitz area removed some 10,000 tons grading approximately 0.2 oz. Au and 3-4 ozs. Ag. (Dump Sample No. 2 F. C. Knight). More recent attempts at exploitation have included bulk shipments from surface for a smelter flux (300 tons) and sampling for a leasing consideration.

Option or Lease Terms

The registered owner of the Austerlitz group is Horton Noon. The holdings have been in the family since 1870 thus providing good title continuity.

L. Drake has tendered to the owner an option to lease the entire group under the following terms:

- (i) lease period of ten years
- (ii) free option for six months period to permit exploration and evaluation of the prospects.
- (iii) a committal to drill 2000 lineal feet of diamond drilling in this free option period.
- (iv) an end purchase price of \$500,000.00 U.S. with royalty payments to accrue as credit on the end purchase price.
- (v) minimum monthly royalty payments of \$300.00 U.S. following the free option six months period.
- (vi) A production royalty of 5% of net smelter returns on crude ore of a value less than \$15.00 per ton and 10% as above on crude ore of a value greater than \$15.00 per ton. This royalty is net smelter returns or gross value less smelting, trucking, rail freight, sampling but exclusive of mining, milling and administrative costs.

In the event of an assignment of the above option, L. Drake was seeking an overriding percentage on the royalty or a compensating finder's fee.

Regional Geology

The Oro Blanco gold belt lies in a well exposed outcrop area known as the Cobre Ridge. The underlying basement forming the axes of the ridges are granitic stocks and plugs, aligned in a north-westerly direction. These youthful Tertiary intrusives related to the Laramide Revolution have metamorphosed and dislocated the pre-existing rocks particularly in the apex of the injected area.

The other major surface exposures are undifferentiated Mesozoic volcanic rocks, largely rhyolitic lavas, porphyry and pyroclastics. Locally these rocks are block faulted, tilted often to apparently steep dips, brecciated and strongly invaded by quartose injections. In the regional aspect they tend to occur flatly capping the granitic rocks, existing only as a result of the whim of the intrusive. Quartz monzonite and diorite porphyry dikes and sheets commonly intruded the Mesozoic volcanics. Cretaceous shales, sandstones and conglomerate occur as inliers overlying the Mesozoic volcanics and also as flat-lying flanking sediments in the surrounding valleys. There would appear to

be some interfingering of lesser sedimentary horizons with the volcanics.

The general trend of the entire sequence is a north westerly alignment in a domal condition.

Faulting parallel to trend (330-345°) and cross faulting (250-260°) has apparently created block faults, disrupting continuity of the strata.

The quartz veins primary host of the gold and silver veins tend to shallow dips parallel to the enclosing rhyolite. Occasionally there are steeply dipping veins, generally with a northwesterly strike, e.g. Austerlitz vein, strike 350°; dip 60°W.

Local Geology

The main interest centred on a rhyolitic lava-tuff-breccia horizon, strongly bleached and silicified with quartose injections. It was anticipated the brecciation and injection was sufficient to impregnate this entire horizon with ore values but sampling revealed the major tenor of gold and silver was limited to the vein system. In consequence, there appeared to be relatively modest tonnage in narrow widths, 4 to 10 feet of this material, thus eliminating the major potential of the property.

Sampling

A total of 75 chip samples listed in the appendix and noted on the accompanying geological plan, was cut as described.

The following comments are pertinent to the sampling:

- i) It was impossible to confirm the dump sampling (F. C. Knight) in situ on the exposed trenches and openings.
- (ii) The major quartose sheeting exposed in the Raganrok cut representing over 100 feet horizontal width and up to 30 feet of true depth containing fair to good silver values but negligible gold tenor.
- (iii) The main exposed Austerlitz vein on a rib sampled 0.07oz. Ag per ton across the 4 ft. exposed.
- (iv) The hillside Austerlitz exposures of the Austerlitz claim (south half) contained fair gold and silver values but the horizon was a mere capping in the quartz monzonite.

(v) The rhyolitic horizon sharply expands on the Switzerland claim. This broadening in width coupled with brecciation and silicification over an impressive area aroused tonnage hopes but the sampling revealed again a localisation of ore values to the quartzose sections. Appreciable galena was apparent on the rhyolite - monzonite contact but one sample only contained appreciable silver (365 - 4.49 oz/ton)

Conclusions

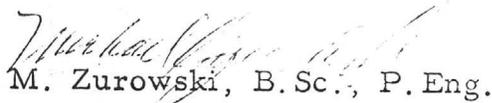
The property under first inspection appeared to possess merit. Following detailed investigation it was apparent the rhyolitic horizon was a capping and hence limited in its downward extension. It also became apparent that the ore grade in Ag and Au was limited to the quartz veins primarily confined to this horizon, thus reducing the tonnage potential to very modest uninteresting proportions.

Recommendations

It is recommended that the company have no further interest or consideration under present circumstances in the Austerlitz claims as reviewed. A totally new showing or mineralized area outside the present area of examination would be a prerequisite to re-examination.



W.W. Weber, Ph.D.



M. Zurowski, B.Sc., P.Eng.

Toronto 1, Ontario,
April 8, 1968.

RAGNAROK - AUSTERLITZ GOLD-SILVER PROSPECT
ORO-BLANCO MINING DISTRICT - SANTA CRUZ COUNTY
ARIZONA - U.S.A.
SURFACE SAMPLING RESULTS

Sample No.	Claim Location	Description	Sample Length Ft.	Assay	
				Oz. Au.	Oz. Ag.
301	Terry	West wall of ADIT leading from open cut. Mineralized Rhyolite and Rhyl. Aggl.	6.0 V	Tr.	0.04
302	"	West wall of open cut at ADIT entrance. Rhyolite and Rhyl. Aggl.	5.5 V	Tr.	0.08
303	"	North face of open cut, 25 ft. east of 302.	5.5 V	Tr.	Tr.
304	"	Mineralized qtz. stringers in altered Gray Rhyolite Bx.	1.0 H	0.01	0.13
305	Switzerland	Mineralized Gray Rhyl. Bx. Bluish Black Stain.	40.0 H	0.008	0.14
306	"	Qtz. veinlets in Rhyolite Porphyry. Mineralized. Much similiar to 305.	60.0 H	0.004	0.10
307	"	Bluish Black Stained. Rhyolite Porphyry. Minor pyrite.	6.0 H	Tr.	0.08
308	"	West wall open cut. Altered rhyolite. Minor pyrite.	7.5 V	0.01	0.11
309		East wall open cut - opposite 308.	6.5 V	Tr.	0.14
310	"	West wall open cut - 10' north of 308. Altered Rhyolite, bottom 2½' mineralized qtz.	8.5 V	0.345	0.40
311	"	East wall open cut - opposite 310 - same rock sequence.	7.5 V	0.520	0.16

Sample No.	Claim Location	Description	Sample Length Ft.	Oz. Au.	Assay Oz.
312	Switzerland	Northwest corner of open cut.	10.5 V	0.03	0.15
313	"	Northeast corner of open cut - 10' east of 312.	7.5 V	Tr.	0.12
314	"	Northeast wall of adit leading from open cut.	6.0 V	Tr.	0.18
315	"	Southeast wall of adit - 6.0 NE of 314.	6.0 V	Tr.	0.20
316	"	Surface chip, N-S direction 25' east of open cut. Bx Rhyolite, bluish black alteration.	75.0 H	0.003	0.12
317	"	Pit sample M1, Sil. Rhyolite Bx.	2.5 V	0.010	0.29
318	"	Pit sample M2, Sil. Rhyolite Bx.	3.0 V	0.120	0.30
319	"	East wall Pit M3, Sil. Rhyolite Bx.	4.0 V	0.240	1.80
320	"	West wall, sil. Rhyol. Bx Pit M3.	4.0 V	0.340	1.80
321	"	North wall of Pit M4. Bx. Rhyolite.	3.0 V	0.060	1.20
322	"	South wall trench M4. Bx. Rhyolite.	2.0 V	0.050	0.71
323	"	South wall of cut leading west from above trench M4.	3.5 V	0.065	0.68
324	"	Underground workings M5. AT. Jct. Winze and NE wall of drift. Altered Rhyolite Bx.	6.0 V	0.165	0.84
325	"	North wall of arch in front of Winze. Mineralized altered rhyolite.	6.0 V	0.160	0.38

Bulk sample #5 site

Sample No.	Claim Location	Description	Sample Length Ft.	Oz. Au.	Gr. Au.
326	Switzerland	South wall of Pit M6.	3.5 V	0.010	0.81
327	"	SE corner of glory hole. Sil. tuffaceous sediment numerous qtz. stringers. Rusty.	8.0 V	0.040	1.18
328	Austerlitz	Altered monzonite porphyry, some greenish chloride alteration.	6.0 V	Tr.	0.10
329	"	South wall open cut M7.- altered Rhyolite. Minor qtz. stringers.	6.0 V	0.060	1.86
330	"	Lower part of M7, highly silicified zone in rhyolite, abundant pyrite.	5.0 V	0.045	1.52
331	Kimberly	Outcrop area - sil. Rhyolite bluish black stain - south of road.	7.0 H	Nil	Tr.
332	"	NW wall of trench. Altered rhyolite porphyry.	7.0 V	0.003	0.08
333	"	Silicified tuff overlying Rhyolite porphyry.	9.5 H	0.025	0.14
334	"	West wall of cut. ADIT leading NE from floor. Siliceous tuff. Qtz stringers.	7.5 V	0.008	0.45
335	"	North face trench. Sil. Rhyolite, lots of fine pyrite.	5.0 V	Nil	0.08
336	"	Surface chip sample along outcrop Rhyolite porphyry - few qtz. stringers and pyrite.	30.0 H	Nil	0.06
337	Ragnarok	Qtz. veins mineralized in Rhyolite Bx.- open cut.	7.0 V	0.06	1.44
338	"	Same open cut and sample 15' south of 337.	10.0 V	0.01	1.05

Sample No.	Claim Location	Description	Sample Length Ft.	Oz. Au.	Assay Gr.
339	Ragnarok	Chip from open cut on top of Ragnarok hill. Altered Rhyolite.	3.0 V	0.02	1.38
340	"	Trench sample, rhyolite with few qtz. stringers.	5.0 V	0.140	2.96
341	"	Trench sample, rhyolite with qtz. stringers.	7.0 H	Tr.	0.36
342	"	Inclined chip across large open cut. Rhyolite Bx., Tuff. Mineralized. Bluish black alteration.	10.0	0.004	1.40
343	"	As above	10.0	0.014	1.47
344	"	" "	10.0	0.03	5.17
345	"	" "	10.0	0.01	2.39
346	"	" "	10.0	0.016	2.48
347	"	" "	8.0	0.01	2.15
348	"	" "	7.0	0.008	4.19
349	"	" "	15.0	0.006	1.34
350	"	" "	10.0	0.008	4.79
351	"	" "	10.0	0.025	3.66
352	"	North wall of Adit leading NE of open cut.	3.5	0.04	0.50
353	"	Chip sample along NW wall of above open cut.	28.0 H	0.02	1.78
354	Austerlitz	North wall of open cut in open cut just north of Crawford tunnel. Rhyolite.	7.0 V	0.025	4.04
355	"	South face open cut. Altered Rhyolite.	6.0 V	0.11	0.66

Sample No.	Claim Location	Description	Sample Length Ft.	Assay	
				Oz. Au.	Oz. Ag.
356	Austerlitz	East end of south face of open cut.	5.0 V	0.01	1.13
357	"	About 20' west of 355.	5.0 V	0.008	1.73
358	"	West wall of cut west of shaft.	5.0 V	0.02	1.30
359	"	Northeast wall of open cut.	9.0 V	0.03	0.61
360	"	North wall of open cut. Rhyolite with qtz. stringers.	7.0 V	Tr.	Tr.
361	"	North wall open cut. Badly oxidized material.	4.0 V	0.04	4.36
362	"	Sample in open cut, just below 361. Oxidized sil. Rhyolite - Pyritic.	3.0 H	0.08	2.32
363	Staked Acreage	West face of ADIT.	7.0 V	Nil	Tr.
364	Terry	NE wall of open cut. Gray Rhyolite Bx. Near mon. Porphyry contact bluish black stain.	6.0 V	0.01	0.28
365	"	Sample on top of Galena Hill. Bx grey rhyolite stained.	10.0 H	0.008	4.49
366	"	Channel along west face of Galena Hill.	18.0 H -	Tr.	0.20
367	"	Along south wall of Galena Hill. -	12.0 H	Nil.	0.04
368	Austerlitz	North wall of open cut.	6.0 V	0.004	0.50
369	"	Floor of above open cut siliceous Rhyolite or tuff.	28.0 H	0.025	1.82
370	"	Across wall just above adits.	26.0 H-	Tr.	Tr.

Sample No.	Claim Location	Description	Sample Length Ft.	Assay	
				Oz. Au.	Oz. Ag.
371	Austerlitz	Qtz. vein in adit. Mineralized with pyrite in Rhyolite Porphyry.	4.5 H	0.07	1.35
372	"	East wall of large open cut. White weathering Rhyolite.	45.0 H	Tr.	Tr.
373	"	East wall of above open cut. Bluish Black Staining.	31.0 H	Nil.	0.22
374	"	West wall of open cut just west of Crawford tunnel.	8.0 V	Nil.	Tr.

Remarks:

- 1) Arithmetic average of 74 samples - 0.043 Oz. Au.
1.080 " Ag.
- 2) Samples 356 and 357 assayed 3.90 and 0.50% lead.
- 3) H - denotes sample length taken in horizontal plane;
V - denotes sample length taken in vertical plane.

SOUTHWESTERN ASSAYERS & CHEMISTS, Inc.

REGISTERED ASSAYERS

FELIX K. DURAZO
WIL WRIGHT
ARIZONA REG. NO. 5875

P. O. BOX 7517
TUCSON, ARIZONA 85713

710 E. EVANS BLVD.
PHONE 602-234-0811

Mister Larry Drake
3934 North Fontana
Tucson, Arizona 85705

JOB # 002272
RECEIVED 3-23-68
REPORTED 3-25-68

SAMPLE NUMBER	GOLD OZ.*	SILVER OZ.*	LEAD %	COPPER %	ZINC %	MOLYBDENUM
301	Trace	.04				
302	Trace	.08				
303	Trace	Trace				
304	.010	.13				
305	.008	.14				
306	.004	.10				
307	Trace	.08				
308	.020	.11				
309	Trace	.14				
310	.345	.40				
311	.520	.16				
312	.030	.15				
313	Trace	.12				
314	Trace	.18				
315	Trace	.20				
316	.003	.12				
317	.010	.29				
318	.120	.30				
319	.240	1.80				
320	.340	1.80				
321	.060	1.20				
322	.050	.71				
323	.065	.68				
324	.165	.84				
325	.160	.38				
326	.010	.81				
327	.040	1.18				
328	Trace	.10				
329	.060	1.86				
330	.045	1.52				
331	Nil	Trace				

CHARGE

* Gold and Silver reported in troy oz. per 2,000 lb. ton.

INVOICE

SOUTHWESTERN ASSAYERS & CHEMISTS, Inc.

REGISTERED ASSAYERS

FELIX K. DURAZO
WIL WRIGHT
ARIZONA REG. NO. 5875

P. O. BOX 7517
TUCSON, ARIZONA 85713

710 E. EVANS BLVD.
PHONE 602-294-5311

Mister Larry Drake

JOB# 002272 Continued

RECEIVED _____

REPORTED _____

SAMPLE NUMBER	GOLD OZ.*	SILVER OZ.*	LEAD %	COPPER %	ZINC %	MOLYBDENUM
332	.003	.03				
333	.025	.14				
334	.008	.45				
335	Nil	.08				
336	Nil	.06				
337	.060	1.44				
338	.010	1.05				
339	.020	1.38				
340	.140	2.96				
341	Trace	.36				
342	.004	1.40				
343	.014	1.47				
344	.030	5.17				
345	.010	2.39				
346	.016	2.48				
347	.010	2.15				
348	.008	4.19				
349	.006	1.34				
350	.008	4.79				
351	.025	3.66				
352	.040	.50				
353	.020	1.78				
354	.025	4.04				
355	.015	.11				
356	.010	1.13				
357	.005	1.73				
358	.020	1.30				
359	.030	.61				
360	Trace	Trace				
361	.040	4.36				
362	.030	2.32				

CHARGE _____

* Gold and Silver reported in troy oz. per 2,000 lb. ton.

INVOICE

SOUTHWESTERN ASSAYERS & CHEMISTS, Inc.

REGISTERED ASSAYERS

FELIX K. DURAZO
WIL WRIGHT
ARIZONA REG. NO. 5875

P. O. BOX 7517
TUCSON, ARIZONA 85713

710 E. EVANS BLVD.
PHONE 602-294-5311

Mister Larry Drake

JOB # 002272 Continued
RECEIVED _____
REPORTED _____

SAMPLE NUMBER	GOLD OZ.*	SILVER OZ.*	LEAD %	COPPER %	ZINC %		MOLYBDENUM %
363	Nil	Trace					
364	.010	.28					
365	.008	4.49					
366	Trace	.20	3.90				
367	Nil	.04	.50				
368	.004	.50					
369	.025	1.82					
370	Trace	Trace					
371	.070	1.35					
372	Trace	Trace					
373	Nil	.22					
374	Nil	Trace					



CHARGE 282.50 Paid

* Gold and Silver reported in troy oz. per 2,000 lb. ton.

INVOICE

ROUYN, QUE. April 1/68

CERTIFICATE OF ANALYSIS

Received from: M. E. M. Consultants Ltd., Toronto, Ont.
 Date Received: April 4/68
 Samples of: Pulp samples
 Identification: Samples No. 1 to 6, 310, 330, 338, 344 & 365.

Our Lab No.	Your Sample No.	Duplicate Gold Assays		Duplicate Silver Assays	
		ozs/ton	ozs/ton	ozs/ton	ozs/ton
246	1	0.03	0.03	5.50	5.46
47	2	0.19	0.16*	3.36	3.20
48	3	0.03	0.03	8.12	8.00
49	4	0.14	0.16	0.14	0.10
50	5	0.32	0.28	1.72	1.84
51	6	0.37	0.36	9.60	9.56
52	310	0.28	0.28	0.30	0.38
53	330	0.07	0.09	1.34	1.34
54	338	0.03	0.04	1.16	1.08
55	344	0.07	0.07	6.08	6.28
256	365	Trace	Trace	1.02	1.02

* Bead broken - assay void

ASSAYERS LIMITED

PER *[Signature]*

COMPARISON OF CHECK ASSAYS

Sample No.	GOLD			SILVER			Remarks
	T.S.L.	Ariz.	Assay Ltd.	T.S.L.	Ariz.	Assay Ltd.	
1	0.10	-	.03 .03	5.56	-	5.48	
2	0.17	-	.19 .16	3.39	-	3.28	
3	0.06	-	.03 .03	6.82	-	8.06	
4	0.18	-	.15 .14	0.22	-	.12	
5	0.33	-	.30 .32	1.78	-	1.78	
6	0.51	-	.37 .37	9.98	-	9.58	
338	0.07	0.01	.04 .03	0.83	1.05	1.12	
310	0.31	0.345	.28 .28	Tr.	0.40	.34	
344	0.07	0.030	.07 .07	6.03	5.17	6.18	
330	0.07	0.045	.08 .07	1.46	1.52	1.34	
365	Nil	0.008	Tr. Tr.	0.99	4.49	1.02	

After

Third Annual Report

of

PLATORO CORPORATION

Calendar year 1963.

PLATORO CORPORATION

Suite 902 - Phoenix Title Building

Tucson, Arizona.

BOARD OF DIRECTORS

Lyall J. Lichty - President
Daniel M. Stranahan - Vice President and Treasurer
Victor H. Verity - Secretary

Bankers - First National Bank of Arizona, Tucson, Arizona.
Auditors - Peat, Marwick, Mitchell & Co., Phoenix, Arizona.

Mail address: P. O. Box 4507, Tucson, Arizona.

REPORT OF THE DIRECTORS

To the Shareholders of Platoro Corporation:

Your directors submit herewith the following Annual Report for 1963, together with the Financial Statement as of December 31, 1963.

Results of the laboratory metallurgical program started in 1962 were inconclusive and work was stopped early in 1963, pending a review of the results and further possibilities.

In April, your company relocated the Worlds Fair group of claims, south of Patagonia, Arizona. This group adjoins the January - Trench claims of American Smelting and Refining company on the north, and is on the same geological structure. The Worlds Fair property had been in the custody of a bankruptcy receiver for the past 37 years and production by leasers was sporadic over that period. It became apparent from observation of the group over a period of time, and from a search of the legal records, that the annual assessment work had not been performed for several years. Hence, our decision was made to relocate the claims. At year end, a program of cleaning out, surveying, and sampling of the tunnels was started.

In August, your company leased, with option to purchase, the Austerlitz group of claims situated in the Oro Blanco Mining District, Santa Cruz county, Arizona. This group consists of three patented and eight unpatented claims in an area where gold mining has been undertaken for over one hundred years. A study

of the records indicated that there was a possibility of developing large tonnages of low grade open pit gold-silver ore. Considerable surveying and sampling was undertaken. Seventeen additional claims were located adjoining the optioned group. Five 50 ton carload lots of ore from five different locations on the claims were sent to the Hayden smelter of A.S.&R. for sampling and analysis. The results were as follows:-

<u>Lot no.</u>	<u>Gold oz./T.</u>		<u>Silver oz./T.</u>		<u>Copper %</u>	
	<u>Platoro</u>	<u>Smelter</u>	<u>Platoro</u>	<u>Smelter</u>	<u>Platoro</u>	<u>Smelter</u>
1.	0.020	0.003	1.05	1.11	0.15	0.09
2.	0.015	0.005	1.00	0.91	0.10	0.03
3.	0.025	0.045	1.65	1.45	0.26	0.09
4.	0.035	0.025	3.15	3.71	1.07	0.90
5.	0.030	0.015	1.10	0.82	0.16	0.09

Further study and reconnaissance of the whole district is being undertaken. The assessment work to maintain all the company-owned claims in good standing was done. A total of six other properties were examined and sampled. An agreement was made with the owner of the Marstellar group of claims whereby, the date of the first payment due under our lease and option agreement, was extended to September 1964.

Your company received shares in La Petite Faye, Societe D'Exploitation for the advances made to that French mining company. Their officials report that in 1963, they milled a total of 600 tons of bulk samples of gold ore from their Maranas property.

The grade of ore was found to be too low to warrant full scale production from the Maranas property. Geological surveys and sampling programs were also undertaken on their Violezeix and Legendre properties. At year end, preparations were being made to mill a lot of rich cyanide tailings from La Fagassiere property, and to recover the surface pillars from La Petite Faye mine for treatment in the mill.

The following financial statements (cash basis) as of December 31, 1963, were prepared by Peat, Marwick, Mitchell and Co., from the company records, but without an official audit.

On Behalf of the Board of Directors

Lyall J. Lichty
President

PLATORO CORPORATION

Statement of Assets and Liabilities
(Cash Basis)

December 31, 1963.
with comparative figures for 1962

(Prepared from the books without audit)

	<u>Assets</u>	<u>1963</u>	<u>1962</u>
Cash	\$	1,601.05	903.91
Investment in foreign mining corporation (France) (note 2)		70,200.00	13,000.00
Equipment, at cost less accumulated depreciation (1963 - \$876,22)		4,993.79	5,315.05
Mining properties and their development to date, at cost (note 3)		57,919.18	42,328.47
Other assets:			
Deferred preoperating expense		9,632.74	6,446.63
Deferred research and development costs		-	3,945.95
Advances to Treasure Syndicate		3,902.77	2,028.67
Salary advance		500.00	500.00
Advance - T. Lindsley		188.50	-
Organization expense, being amortized		<u>873.60</u>	<u>1,164.80</u>
	\$	<u>149,811.63</u>	<u>75,633.48</u>

See accompanying notes to financial statements.

	<u>Liabilities</u>	<u>1963</u>	<u>1962</u>
Advances from Eureka Corp.	\$	9,000.00	-
Stockholders' equity:			
Thirty cents (\$.30) cumulative convert- ible preferred stock of \$5.00 par value per share; redeemable at par plus accrued dividends. Authorized 100,000 shares; issued and outstanding none		-	-
Common stock of \$1.00 par value per share. Authorized 1,000,000 shares; issued and outstanding 554,144 shares, 1963; 399,229 shares, 1962. (note 4)		554,144.00	399,229.00
Less excess of par value of stock over assets acquired therefor		<u>397,563.57</u>	<u>320,106.07</u>
Accumulated deficit		<u>156,580.43</u> <u>(15,768.80)</u>	<u>79,122.93</u> <u>(3,489.45)</u>
Total stockholders' equity	\$	<u>140,811.63</u>	<u>75,633.48</u>
	\$	<u>149,811.63</u>	<u>75,633.48</u>

PLATORO CORPORATION

Statement of Loss and Deficit
(Cash Basis)

Year ended December 31, 1963

(Prepared from the books without audit)

Losses were sustained representing expenditures relating to certain mining properties which were given up, abandoned, or the mining rights surrendered, during 1963 (note 1); also, research expenditures relating to certain metallurgical processes were determined by the company to be of no further value and were written off during the year.

Direct expenditures:	
Santa Rita	\$ 3,792.06
Silver Eureka	379.98
Beautiful Zion	140.63
Desert Center	79.68
Desert Mine	78.50
Ramsey Mine	74.34
Others	<u>101.93</u>
	4,647.12
Unallocated development costs	<u>1,004.38</u>
	5,651.50
Estimated portion of the company's administrative and general oper- ating expenses applicable to the above properties	<u>1,603.84</u>
	7,255.34
Research and development costs	<u>5,024.01</u>
Net loss for the year	12,279.35
Accumulated deficit at beginning of year	<u>3,489.45</u>
Accumulated deficit at end of year	\$ <u><u>15,768.80</u></u>

See accompanying notes to financial statements.

PLATORO CORPORATION

Notes to Financial Statements

December 31, 1963.

(1) Currently expenditures are made by the company for the purpose of acquiring and developing mining properties. Tentatively, all expenditures with respect to a new property are capitalized, but when a property is given up, all direct expenses and the proper share of related overhead are charged off. Such expenditures on properties given up and research costs considered to be of no further value to the company constitute the company's entire loss, as shown on the statement of loss and accumulated deficit.

(2) The investment in the French foreign mining corporation was acquired for cash and common stock as follows:

Cash	\$ 13,000.00
114,400 shares of Platoro Corporation common stock of \$1.00 par value (issued at \$.50 per share)	<u>57,200.00</u>
	<u>\$ 70,200.00</u>

(3) Mining properties and their development costs at December 31, 1963 are as follows:

Unallocated development costs	\$ 12,318.68
Direct development costs of specific mining properties	
Humbolt	22,786.54
Austerlitz	12,989.57
Santa Cruz	6,275.01
Worlds Fair	1,597.78
Salvador	1,110.60
Hosey	485.70
Lucky Strike	241.33
Mohawk Chief	64.53
Washington Camp	49.44
	<u>\$ 57,919.18</u>

PLATORO CORPORATION

Notes to Financial Statements, Continued

(4) In August, 1961 the Board of Directors of Platoro Corporation granted a special option to purchase 130,000 shares of common stock of the corporation at a price of ten cents per share. The option is for an indefinite time with the understanding that the directors shall, at a later time, specify the period within which the option may be exercised.

On March 21, 1963 the Board of Directors granted a special option to purchase 40,000 shares of the corporation's common stock at a price of ten cents per share. The option expires January 2, 1965.

The Board of Directors
Platoro Corporation:

The accompanying financial statements (cash basis) of Platoro Corporation for the year ended December 31, 1963 were not audited by us and we express no opinion thereon.

"Peat, Marwick, Mitchell & Co.,"

Tucson, Arizona
February 26, 1964.

Alps

072- 074

CMH 9-

MAY CONTAIN LITTLE COPPER ?

Ken

1435 S. 10th AVE.

P. O. BOX 1889

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

DUPLICATE

Certificate No. **59335**

TUCSON, ARIZONA 85702

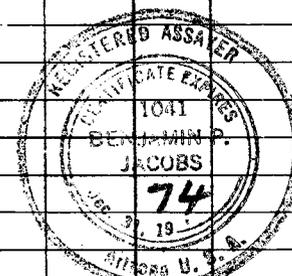
June 14th

1974

Sample Submitted by Mr.

Exxon International Inc. Mr. Ken Jones

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
# 063	Trace	\$	0 08				
64	0 002		0 12				
65	Trace		0 08				
66	Trace		0 05				
67	0 003		0 35				
68	0 002		0 25				
69	Trace		0 20				
070	Trace		0 10				
71	0 002		0 20				
72	Trace		0 25				
73	Trace		0 30				
74	0 030		0 62				
75	0 002		0 35				
76	0 010		0 30				
77	0 002		0 25				
78	Trace		0 20				
79	0 002		0 15				
080	Trace		0 25				
081	0 003		0 10				
# I-Campbells	Trace		0 15				
CMH # 1	0 005		0 35				
2	0 002		0 40				
3	0 003		0 45				
4	Trace		0 30				
5	Trace		0 15				
6	0 003		0 25				
7	0 003		0 40				
8	0 002		0 25				
9	Trace		0 15				
CMH. 10	0 002		0 25				



Triplicate - I.A.T. FIRE ASSAYS MADE ON ABOVE SAMPLES

* Gold Figured \$35.00 per oz. Troy

Very respectfully,

Ben O. Jacobs

Charges \$ **210⁰⁰**

1435 S. 10th AVE.

P. O. BOX 1889

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

JUN 11 1974

RECEIVED

DUPLICATE

Certificate No. **69333**

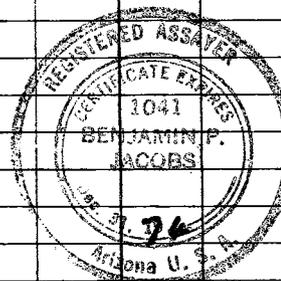
TUCSON, ARIZONA 85702

June 10th 1974

Sample Submitted by Mr.

Env. International Inc. Mr. Ken Jones

SAMPLE MARKED	GOLD	GOLD	SILVER	COPPER	LEAD		
	Ozs. per ton ore	Value per ton ore	Ozs. per ton ore	Per cent Wet Assay			
# 033	0.003	\$	0.85				
34	Trace		0.10				
35	Trace		0.15				
36	0.002		0.15				
37	Trace		0.20				
38	Trace		0.30				
39	Trace		0.05				
040	0.002		0.10				
41	0.002		0.55				
42	0.003		0.60				
43	0.003		0.35				
44	Trace		0.20				
45	Trace		0.15				
46	0.002		0.25				
47	Trace		0.10				
48	Trace		0.05				
49	0.002		0.15				
050	Trace		0.05				
51	Trace		0.10				
52	0.002		0.15				
53	0.005		0.25				
54	0.003		0.20				
55	0.002		0.16				
56	Trace		0.08				
57	0.003		0.26				
58	Trace		0.22				
59	Trace		0.08				
060	0.002		0.25				
61	0.002		0.16				
062	0.004		0.22				



TRIPPLICATE - I.A.T. FIRE ASSAYS MADE ON ABOVE SAMPLES

* Gold Figured \$35.00 per oz. Troy

Very respectfully,

Ben P. Jacobs

Charges \$ **225.00**

1435 S. 10th AVE.
P. O. BOX 1889

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

DUPLICATE

Certificate No. **59331**

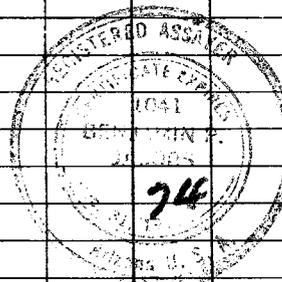
TUCSON, ARIZONA 85702

JUNE 6th 1974

Sample Submitted by Mr.

Ever International Inc - Mr. Ken Jones

SAMPLE MARKED	GOLD	GOLD	SILVER	COPPER	LEAD		
	Ozs. per ton ore	Value per ton Ore	Ozs. per ton ore	Per cent Wet Assay			
		\$					
# 003	0.060		0.35				
4	0.005		0.12				
5	0.002		0.10				
6	0.015		1.35				
7	Trace		0.28				
8	0.002		0.14				
9	0.055		0.75				
# 010	Trace		0.05				
11	0.002		0.10				
12	0.002		0.05				
13	Trace		0.10				
14	0.002		0.18				
15	Trace		0.06				
16	Trace		0.10				
17	Trace		0.05				
18	0.003		0.35				
19	0.002		0.15				
# 020	Trace		0.22				
21	0.005		0.85				
22	0.002		0.25				
23	0.002		0.28				
24	0.010		0.30				
25	0.002		0.36				
26	Trace		0.10				
27	Trace		0.05				
28	0.003		0.05				
29	0.002		0.12				
# 030	Trace		0.05				
31	Trace		0.16				
# 032	0.005		0.80				



Triplicate - I.A.T. - FIRE ASSAYS MADE ON ABOVE SAMPLES

* Gold Figured \$35.00 per oz. Troy

74

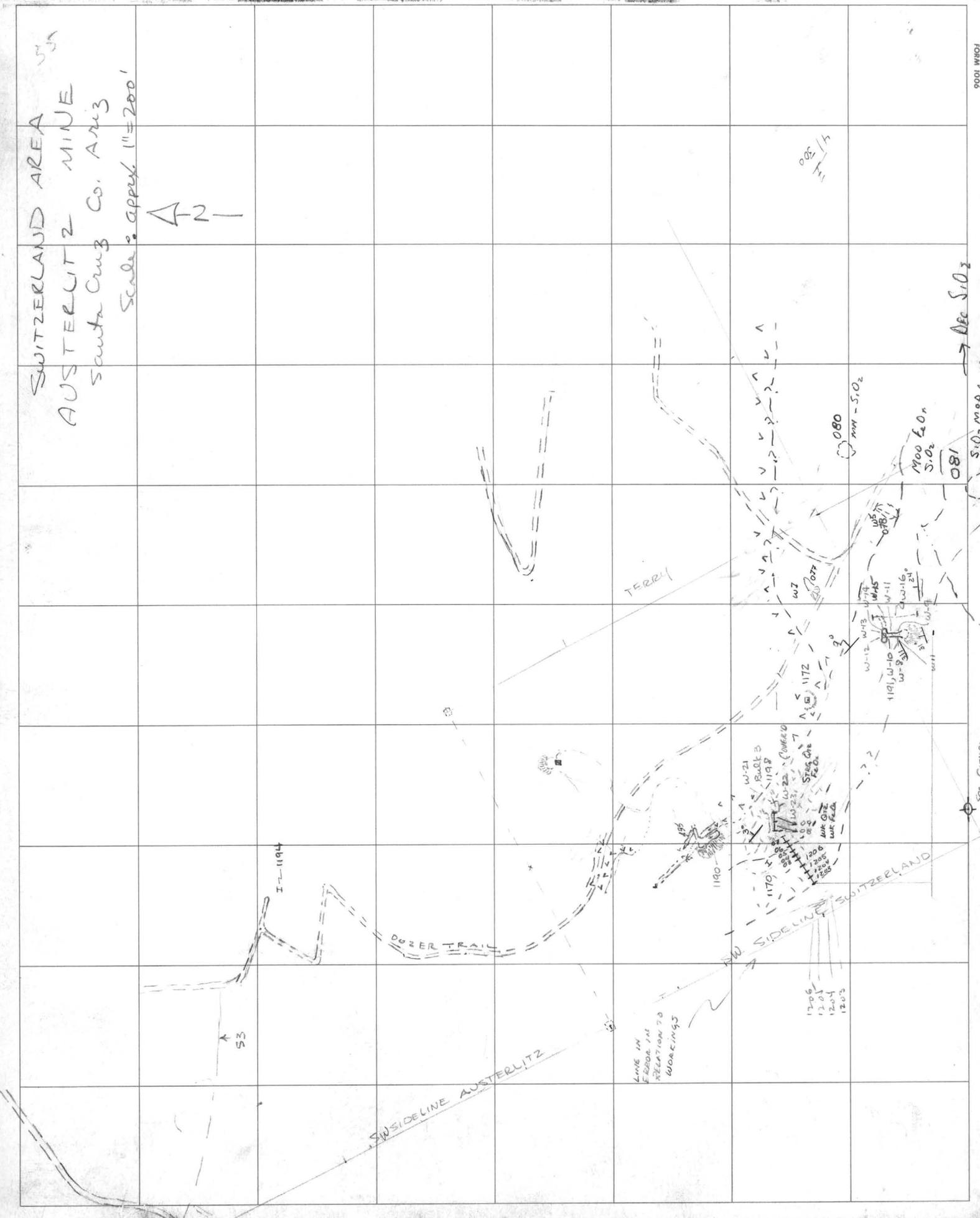
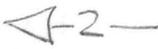
Very respectfully,

Paul P. Jacobs

Charges \$ **225.00**

SWITZERLAND AREA
AUSTERLITZ MINE
Santa Cruz Co. Ariz

Scale: approx. 1" = 200'



DEC S102
S102 M.S. 40
M.S. 40
S102
O81

SEC CORNER

SWITZERLAND AREA

Bulk 5	5 tons	.030	1.10
1170	4.0 ft.	.005	.75
1171	grab.	.004	.60
1172	dump	.004	.35
1190	sulfide dump	.105	.70
1191	5.5 ft.	.003	.34
1198	200 lb. bulk.	.033	1.41
1203	6.0 ft true thickness	Trace	.07
1204	" " "	Trace	.05
1205	" " "	.003	.16
1206	" " "	.002	.12

WEBBER SAMPLES, SWITZERLAND AREA.

305	40.0 ft. horiz.	.008	.14	
306	60.0 " "	.004	.10	
307	6.0 " "	trace	.08	
308	7.5 ft. vert.	.01	.11	
309	6.5 " "	trace	.14	
310	8.5 " "	.345	.40	
311	7.5 " "	.520	.16	
312	10.5 " "	.03	.15	
313	7.5 " "	trace	.12	
314	6.0 " "	trace	.18	
315	6.0 " "	Trace	.20	
316	75.0 ft. horiz.	.003	.12	
317	2.5 ft. vert.	.010	.29	
318	3.0 " "	.120	.30	
319	4.0 " "	.240	1.80	
320	4.0 " "	.340	1.80	
321	3.0 " "	.060	1.20	} site of bulk 5, $\text{ave.} = .058$.86
322	2.0 " "	.050	.71	
323	3.5 " "	.065	.68	
324	6.0 " "	.165	.84	
325	6.0 " "	.160	.38	
326	3.5 " "	.010	.81	
327	8.0 " "	.040	1.18	

Arithmetic average .095 .52

622 0813

Au @ \$150⁰⁰

Ag @ \$5⁰⁰

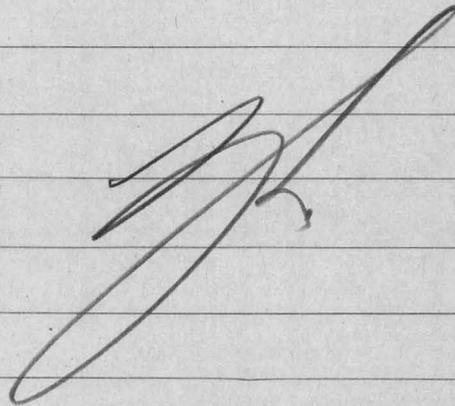
		<u>oz. Au</u>	<u>Value</u>	<u>oz. Ag</u>	<u>Value</u>	<u>Total value</u>
Mar. 27	1974 1151	.59	\$88.50	5.0	\$25.00	\$113.50
" "	" 1152	.01	1.50	.4	2.00	3.50
Mar. 28	3	trace	-	.1	0.50	0.50
" "	4	.17	25.50	.7	3.50	29.00
Mar. 31	5	.06	9.00	.6	3.00	12.00
" "	6	.03	4.50	.5	2.50	7.00
" "	7	.03	4.50	.5	2.50	7.00
" "	8	.08	12.00	.6	3.00	15.00
" "	9	.02	3.00	.7	3.50	6.50
" "	1160	.005	0.75	.2	1.00	1.75
" "	1	.07	10.50	.6	3.00	13.50
" "	2	.01	1.50	.3	1.50	3.00
Apr. 2	3	.02	3.00	.7	3.50	6.50
" "	4	.02	3.00	.5	2.50	5.50
Apr. 3	5	.005	0.75	.8	4.00	4.75
" "	6	.01	1.50	1.0	5.00	6.50
" "	7	.02	3.00	1.4	7.00	10.00
Apr. 4	8	.22	33.00	7.3	36.50	69.50
" "	9	.02	3.00	1.4	7.00	10.00
" "	1170	.01	1.50	.7	3.50	5.00
" "	1	.01	1.50	.8	4.00	5.50
" "	2	.01	1.50	3.2	16.00	17.50
Apr. 6	3					
" "	4					
Apr. 7	5					
" "	6					
Apr. 9	7					
" "	8					
" "	9					
" "	1180					
" "	1					
" "	2					
" "	3					

Ken

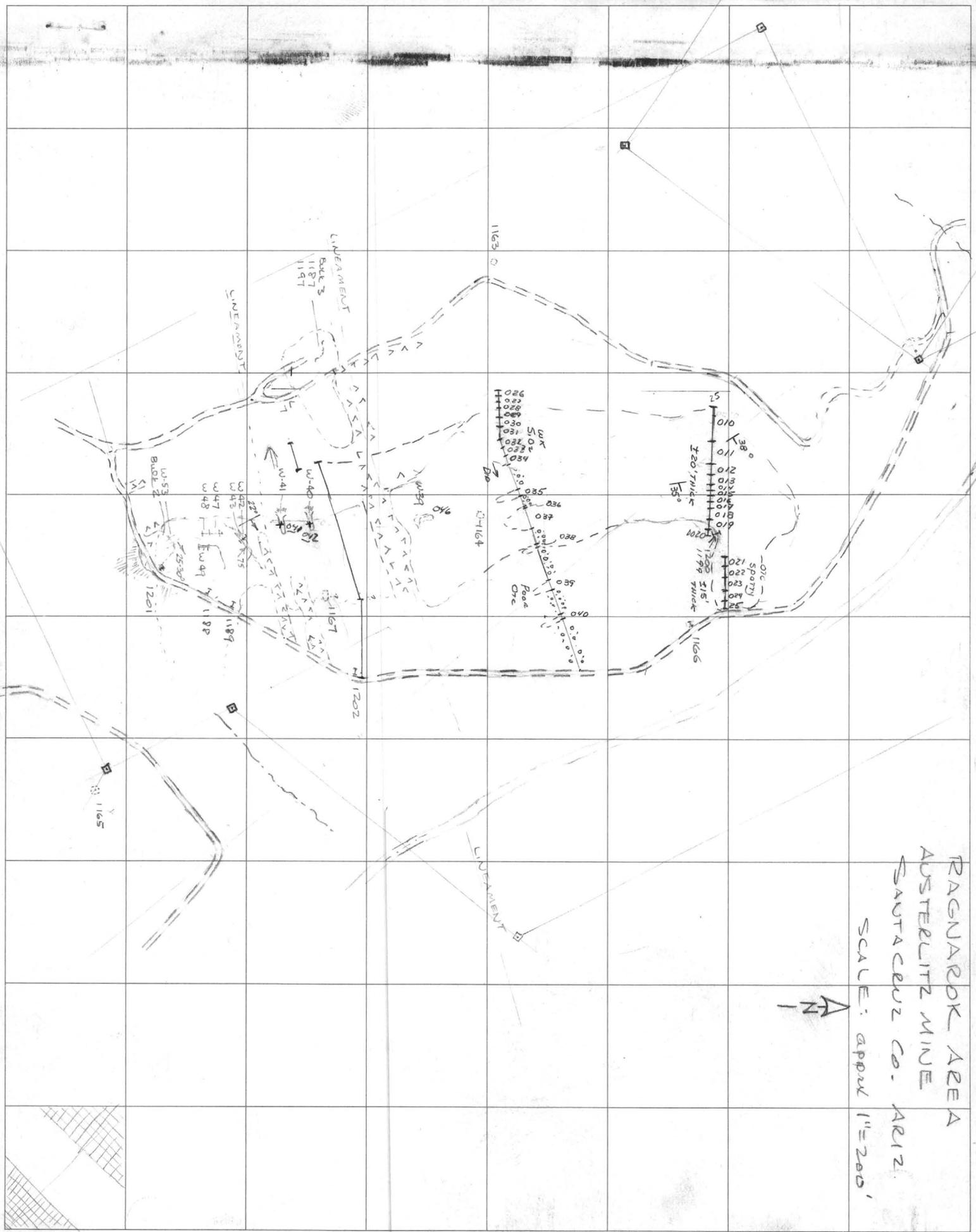
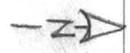
May 7/74

Hand assays - Austerlitz

<u>Sample No</u>	<u>% Cu</u>	<u>g/t Au</u>	<u>oz/t Ag</u>
1197	.081	.059	2.00
1198	.050	.033	1.41



RAGNARDK AREA
 AUSTRALITE MINE
 SAUTACEUZ CO. ARIZ.
 SCALE: approx 1"=200'



RAGNAROK SAMPLES

1163	10 ft. square outcrop.	.006	.25
1164	3 ft square outcrop.	.004	.15
1166	5.0 ft.	.006	1.05
1167	2 x 3 ft. outcrop.	.009	1.50
Bulk 2	50 tons	.015	1.00
Bulk 3	50 tons	.025	1.65
1187	Selected Sulfides	.06	2.35
1188	5.0 ft.	.006	.36
1189	5.0 ft.	.003	.12
Bulk 1197	200 lbs	.059	2.00
1199	5.0 ft.	.003	.58
1200	3.5 ft.	trace	.48
1201	5.0 ft	.003	.30
1202	5.5 ft.	trace	.35

Arithmetic average thru sample 1197 .019 1.04

thru sample 1202 .014^(2.10).87 (\$4.34)

WEBBER SAMPLES FROM PAGNAROCK

337	7.0 ft. vert.	.06	1.44	
338	10.0 " "	.01	1.05	
339	3.0 " "	.02	1.38	
340	5.0 " "	.140	2.96	
341	7.0 ft. horiz.	trace	.36	
342	10.0 ft.	.004	1.40	
343	10.0	.014	1.47	
344	10.0	.03	5.17	
345	10.0	.01	2.39	
346	10.0	.016	2.48	
347	8.0	.01	2.15	
348	7.0	.008	4.19	
349	15.0	.006	1.34	
350	10.0	.008	4.79	
351	10.0	.025	3.66	
352	3.5	.04	0.50	
353	28.0 horiz.	.025	1.78 4.04	west wall of bulk sample 2

Arithmetic average .025 2.27

Weighted average 163.5' .020 2.29

1435 S. 10th AVE.
P. O. BOX 1889

MAY 24 1974 Jacobs Assay Office

PHONE 622-0813



RECEIVED

Registered Assayers

Certificate No. 59320

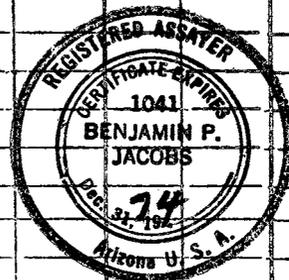
TUCSON, ARIZONA 85702

May 28 1974

Sample Submitted by Mr.

Exxon International, Mrs. Van Jones

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
01203	Trace	\$	0.02				
1204	Trace		0.05				
1205	0.003		0.16				
1206	0.002		0.12				



Triplicate - 1 A.T. FINE ASSAYS. MADE ON ABOVE SAMPLES

PROJECT NO. _____
 BUDGET NO. _____
 APPROVED BY _____
 DATE _____ FOR _____
 PAYMENT OF \$ _____ ONLY

* Gold Figured \$35.00 per oz. Troy

Charges \$ 30.00

Very respectfully,

Ben P. Jacobs

1435 S. 10th AVE.

P. O. BOX 1669

Jacobs Assay Office

Registered Assayers



PHONE 622-0810

MAY 20 1974

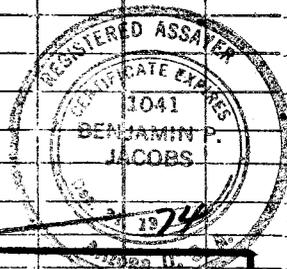
Certificate No. **59317**

TUCSON, ARIZONA 85702

May 22nd 1974 RECEIVED

Sample Submitted by Mr. **Ernie International. Mr. Ken Jones**

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
# Q 1199	0 003	\$	0.58				
0 1200	Trace		0 48				
0-1201	0 003		0 30				
0 1202	Trace		0 31				



Triplicate - 1-A-T FIRE ASSAYS

PROJECT NO. _____
 BUDGET NO. _____
 APPROVED BY _____
 DATE _____ FOR _____
 \$ _____ ONLY

Very respectfully,

Ben P. Jacobs

* Gold Figured \$35.00 per oz. Troy

Charges \$ **30⁰⁰**

1435 S. 10th AVE.

P. O. BOX 1889

Jacobs Assay Office

Registered Assayers



PHONE 622-0813

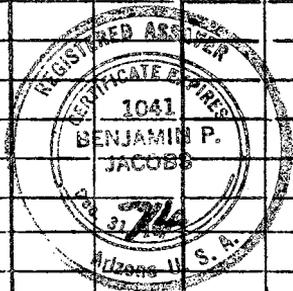
DUPLICATE

Certificate No. 59311

TUCSON, ARIZONA 85702 May 10 1974

Sample Submitted by Mr. Ever International, Inc. - Mr. Ben Jones

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
		\$					
# 1163	0 006		0 25				
64	0 004		0 15				
65	0 005		0 20				
66	0 006		1 05				
67	0 009		1 50				
68	0 21		7 00				
69	0 008		1 00				
1170	0 005		0 75				
71	0 004		0 60				
72	0 004		0 35				
TRIPPLICATE.. I-A-T. ASSAYS MADE (FIRE ASSAY)							



* Gold Figured \$35.00 per oz. Troy

Charges \$ No. Charge

Very respectfully,

Ben P. Jacobs

1435 S. 10th AVE.

P. O. BOX 1889

Jacobs Assay Office

PHONE 622-0813



Registered Assayers

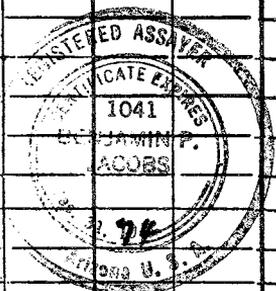
DUPLICATE

Certificate No. 59301

TUCSON, ARIZONA 85702 April 26 1974

Sample Submitted by Mr. Essex International, Inc. Mr. Ken Jones

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ofe	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
		\$					
0.1187	0.06		2.35	0.21			
88	0.005		0.40				
89	Trace		0.15				
1190	0.11		0.75	0.03			
91	0.005		0.35				
92	Trace		0.10				
93	0.07		0.95				
94	Trace		0.15				
95	Trace		0.10				
96	Trace		0.20				



* Gold Figured \$85.00 per oz. Troy

Charges \$ 4300

Very respectfully,

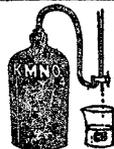
Ben P. Jacobs

1435 S. 10th AVE.

P. O. BOX 1889

Jacobs Assay Office

PHONE 622-0813



DUPLICATE

Registered Assayers

Certificate No. 59312

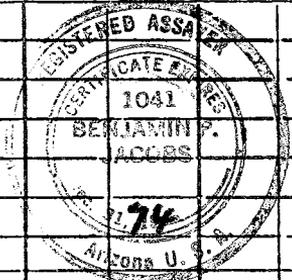
TUCSON, ARIZONA 85702

May 10

1974

Sample Submitted by Mr. Essex International, Inc. Mr. Ken Jones

SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
		\$					
# 1188	0.006		0.36				
89	0.003		0.12				
1190	0.105		0.70				
91	0.003		0.34				
1193	0.085		1.00				
94	0.002		0.12				
95	Trace		0.08				
96	0.002		0.22				
TRIPPLICATE. I.A.T. ASSAYS MADE. - (FIRE ASSAY)							



* Gold Figured \$85.00 per oz. Troy

Charges \$ 60.00

Very respectfully

Ben P. Jacobs

AVERAGE VALUE OF 5 50 TON SAMPLES
 SHIPPED TO ASARCO'S HAYDEN SMELTER 1963

<u>JACOBS ASSAY</u>		<u>VALUE</u>	<u>ASARCO ASSAY</u>		<u>VALUE</u>
oz. Au.	.025	\$ 3.75	.019		\$ 2.85
oz. Ag	1.59	7.95	1.60		8.00
% Cu	.35%	4.76	.24		3.26
		<u>\$ 16.46</u>			<u>\$ 14.11</u>

Using gold @ \$150⁰⁰ per ounce, silver @
 \$5⁰⁰ per ounce, and Copper @ \$0.60⁰⁰ per pound.

AriThmetic average of These 8
samples is :

.01303 Au 1.1403 Ag

Composite sample by 3 assay ton
method

.006 03 Au. 0.65 03 Ag.

These samples are: 1163, 1164, 1165, 1166,
1167, 1170, 1171, 1172

later These samples assayed individually
by 3 assay ton method

- average .0054 Au .61 Ag.

@ \$110 Au & \$5 Ag = \$10 + \$3.05