CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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REPORT ON THE GRANITE WASH PROJECT
LA PAZ COUNTY, ARIZONA

FOR

KENNECOTT CORPORATION

by

Joe Wilkins

SUMMARY

The Granite Wash project area was mapped at 1 inch = 1000 feet and 108 samples obtained for geochemical analyses. Significant alteration associated with gold and copper metallization was found to be spatially and genetically related to the Granite Wash fault, a low-angle normal shear zone. Mineralization consists of oxidized gold-bearing and copper-bearing massive sulfides and magnetite deposited along and above the fault. Cataclastic and mylonitic textures in the ore zones indicate syn-tectonic deposition. Alteration along the fault is chlorite-dominant in the NW and sericite-dominant in the Yuma-Magnetite mine area. ENE-trending faults, cutting the upper plate, are mineralized tear faults and are guides to metallization.

Targets are detachment fault-type, gold-bearing breccias along and above the Granite Wash fault. Although incompletely mapped, at least 10,000 feet of fault zone is present with an upper plate covering about 2 square miles. The thickness of the altered and brecciated package above the fault is up to 250 feet. A multi-million ounce gold deposit at a minimum grade of 0.035 to 0.045 oz/ton is geologically feasible.

RECOMMENDATIONS

Additional mapping and sampling is recommended for the Granite Wash area to fully define the target area. Targets in a semi-advanced stage include the Yellow Breast mine area and the sericite-altered zone halfway between the Magnetite mine and the Yellow Breast mine. The latter is a broad zone of sericite alteration with anomalous values in Au, Cu, Mo, Pb and Zn, associated with the intersection of a tear fault with the Granite Wash fault zone. At the Yellow Breast mine, gold and copper are present in actinolite-bearing rock in a quartzite lens. The actinolite rock is a permeable unit along a high-angle shear and probably represents leakage from a larger zone at the Granite Wash fault.

INTRODUCTION

At the request of Linus T. Keating, of Kennecott Corporation, the Granite Wash Prospect area, La Paz County, Arizona was mapped(Figure 1) and sampled. The property was submitted on a finders fee basis by Russ Corn. Field work consisted of detailed mapping and sampling between August 18, 1991 and November 15, 1991. Total field work, including travel time from Tucson, was 20 days. The work was terminated prior to completion of the map and sample program.

LAND and LOCATION

The property consists of numerous unpatented mining claims with various ownerships located about 10 miles northwest of Salome, Arizona in the Granite Wash mountains(figure 2). The claims are located in the Ellsworth Mining District, in sections 23, 24, 25, and 26, T.6 N., R.15 W, and sections 19 and 30, T. 6 N., R. 14 W. The land is administered by the U.S. Bureau of Land Management. Elevations in the prospect area range from 1500 to 2300 feet.

PAST PRODUCTION/PREVIOUS WORK

Past production in the Ellsworth Mining District area totals about 583,000 pounds of copper, 12,000 pounds of lead, 11,000 ounces of silver, 1,300 ounces of gold, and about 1000 units of tungsten(Keith, and others, 1983). Production was mostly from the Yuma mine. Other producers include the following(Keith, 1978):

Mine	Tons	Cu %	Au o/t	Au Oz	Ag o/t
Yuma mine	8,600	2.3	0.030	258	0.30
Glory Hole mine				450	
Desert Queen mine		2.0	0.30		5.0
True Blue mine		1.0	0.70		0.6

Estimated reserves at the Yuma mine(figure 3), as blocked out by underground workings in 1950, total about 300,000 tons grading 1.7% Cu and 0.035 oz/t Au(Coupal, 1950).

Previous Bear Creek Mining exploration includes mapping and sampling by Dave Blake and Eberhardt Schmidt in 1966(Balla, 1966). They surmised that the extensive chlorite alteration and oxide copper mineralization was related to a buried porphyry copper system on the pediment to the west and recommended gravity and IP surveys. A reconnaissance gravity survey followed by a 3-line IP survey on the pediment area was subsequently completed(Longacre, 1966). The IP data did not indicate a buried porphyry copper deposit but does suggest the presence of a low-sulfide system.

Other exploration efforts include Oliver B. Kilroy's 15 drill holes over the past 20 years on a large claim block south of the area of interest(see Corn report,1991). In the Three Musketeers mine area, 5 or 6 RDH holes were completed by Weaco in about 1985.

GEOLOGY

Regionally the prospect is situated in the upper plate of a highly extended terrain which includes the Buckskin and Harcuvar mountains metamorphic core complexes. In addition, the upper plate block is located along the Big Maria-Harquahala thrust complex and is composed of imbricately thrusted slices of Paleozioc and Mesozoic sequences(Reynolds, and others, 1989).

LITHOLOGY

Rocks in the target area are complexly faulted and folded sequences of Paleozoics including all, or parts of the Bolsa, Abrigo, Martin, Redwall, Supai, Coconino, and Kiabab formations and Mesozoic clastic units such as the McCoy Mtns, Buckskin, and Vampire formations. The entire sequence is intruded, on its north margin, by the late Cretaceous-aged Tank Pass granite and by numerous Tertiary-aged lampophyre dikes. The Paleozoic and Mesozoic units are metamorphosed to a greenschist facies.

STRUCTURE

At least 6 low-angle thrust faults have been mapped by Reynolds in the target area. Reynolds(1989) considers these faults to be part of the Mesozoic overthrust. However, at least one of the faults is definitely a low-angle normal fault, is Tertiary in age, and is associated with regionally developed detachment faulting. The low-angle normal fault is termed the Granite Wash fault and is partially mapped on the attached geological map(Figure 1). It is the primary control to mineralization in the target area. Brecciated and altered rock in and above the fault is as much as 500 feet thick.

Within the thrust slices, the Paleozoic units are complexly folded, including recumbent folds and refolded folds(see figure 4a).

A limited number of ENE-striking, high-angle and low-angle faults cut the upper plate units and are invariably mineralized with Cu and Au. Lineations and slickensides on this fault set are low-angle to the NW, commonly N60-65E at 10 to 25 degrees. The ENE trend is parallel to the regional transport direction in the detachment terrains and is the tear fault trend.

Listric normal faults are represented by NW- to NNW-striking, E- and W-dipping faults, some of which are altered and mineralized.

ALTERATION

Alteration is complex, widespread, and multiphased; at least 3 periods of alteration may be present: an early skarn-like alteration, a regional metamorphism, and a younger alteration suite associated with shearing along the Granite Wash fault zone.

Skarn-like alteration is represented by a suite that includes hedenbergite-garnet-actinolite-massive sulfide. This suite occurs sporadically in the Yellow Breast mine area south of the contact between the Tank Pass granite and upper plate carbonate rocks. Other skarn-like alteration is present as wollastonite in dolomite associated with massive sulfide gossan. Jasparoid development is extensive in the carbonate units south of the Three Musketeers mine and probably represents distal skarn zones.

Regional metamorphism is represented by chlorite+epidote in the clastic units, especially the Mesozoic rocks, and marblization+serpentine on fractures in the carbonate sequences.

Alteration related with the Granite Wash normal fault is dominated by sericite+chlorite+quartz+actinolite associated with magnetite and massive sulfide

gossans. The structure is chlorite-dominant in the west at Three Musketeers and sericite-dominant in the east at the Magnetite mine suggesting strong zoning patterns. Fault-related sericite commonly replaces metamorphic chlorite in permeable units and along structural zones in the upper plate. Overlapping alteration suites are common where the fault-related suite alters pre-existing assemblages.

MINERALIZATION

Mineralization is similar to alteration, at least 3 phases are present, but the critical and most important phase is the Granite Wash fault-related mineral system. This is the Au-Cu phase and displays many characteristics in common with the detachment fault model. Mineralization is complexly zoned with magnetite occurring in the "core" facies. The magnetite zone overlaps with and grades laterally into a massive sulfide+actinolite+sericite zone. The fringe zone consists of weaker sericite and considerably less sulfide mineralization.

Gold and copper are commonly associated with the magnetite and with cataclastically deformed massive sulfide gossans. Gangue is commonly quartz or quartz breccias with some carbonate development. Oxidation is intense and the copper usually occurs as chyrsocolla, malachite-azurite, or brochintite. Gypsum, derived from the gossans, is very common.

Because the mineralization was not fully defined by mapping and sampling, the following discussions of individual mines and mining areas is included to illustrate characteristics of the target zones.

YUMA MINE: The Yuma mine has reserves/resources totalling 300,000 tons at 1.7% Cu and 0.035 oz/t Au. The ore zone occurs along a low-angle, south-dipping fault zone. As shown on figure 1, the Cu-Au ore-hosting shear zone cuts a major thrust fault and is a low-angle normal fault zone similar to the Granite Wash shear, but its relationship to the Granite Wash low-angle normal fault is not fully understood because the intervening area was not mapped.

The adit at the Yuma mine(figure 3b) trends ENE along a 45-50 degree-dipping, shear zone which cuts a north-dipping thrust fault(with Paleozoic over Mesozoic). The fault zone hosts oxidized sulfide mineralization which is now mylonitic and cataclastic chyrsocolla-azurite and minor malachite and gossan derived from a massive sulfide(figure 4b). High-grade samples of the ore gave the following results(in ppm):

SAMPLE	Au	Ag	Cu	Pb	Zn	Mo	Ba
CuOx	1.2	7.8	>1%	2	1500	260	20
Gossan	.58	7.8	>1%	6	2800	170	20

Samples from the shear zone east of the portal gave similar, but lower-grade, values. Analyses for Hg, As, and Sb showed very low and insignificant values.

Along strike, to the east, the shear zone hosts magnetite+copper oxide mineralization similar to the Magnetite mine area.

MAGNETITE MINE: The Magnetite mine has an estimated resource of more than 1,000,000 tons grading about 50% Fe, 1.6 % Cu and 0.04 oz/t Au(assays from Harrer, 1964). The magnetite-copper deposit occurs along the Granite Wash fault

replacing sheared dolomite marble(figure 5). The dolomite is recumbently folded but the magnetite replacement follows the shear zone.

Sampling in the magnetite zone gave results considerably less than the 0.04 oz/ton Au values: generally between 40 and 515 ppb with one sample assaying 3.28 ppm. Copper values ran between 27 ppm and 1%, with 8 of 11 along the shear zone above 1000 ppm and averaged 0.3%. Zinc, Mo, and Ag values were also anomalous and Pb and Ba values were anomalously low.

THREE MUSKETEERS MINE: The Three Musketeers mine is located in the NW portion of the map area and consists of several inclined shafts and open cuts along the Granite Wash fault(Figure 6). Mineralization along the fault consists of sheared and boudinaged quartz and brown carbonate with extensive green-black chlorite. Geochemically, the system(from 4 samples) is low in Au; 10-25 ppb with one value at 240 ppb, and not anomalous in any other metals except Pb, 2 samples exceed 100 ppm. The Three Musketeers was mined for tungsten.

Figure 7 shows a Tertiary-aged(?) lampophyre dike intruding along the Granite Wash fault zone and in 7b, the same dike is truncated by the fault. The lampophyre dikes are probably part of the extensive Tertiary-aged dike swarms common throughout the Harquahala and Harcuvar mountains. This relationship suggests that the Granite Wash fault is also Tertiary.

YELLOW BREAST MINE: The Yellow Breast mine consists of several adits, shallow shafts and glory holes along an actinolite-bearing horizon adjacent to a thick quartzite unit(figures 8a and 8b). Skarn-like alteration is present in one locality with a hedenburgite+garnet+actinolite assemblage. Malachite, brochintite, and chyrsocolla in massive sulfide gossan associated with relict chalcopyrite-pyrite are present.

The principle workings at the Yellow Breast, shown in figure 8a, were mapped and sampled as shown on figure 9. The Yellow Breast area is dominantly quartzite with lenses of carbonate-bearing material which are replaced by actinolite-tremolite and pyrite. The quartzite is cut by a segmented lampophyre dike. Gold values occur in the quartzite and increase as the actinolite zone is approached. Within the actinolite, up to 1 ppm Au was cut across a 10-foot face in the glory hole(sample No. 12 on figure 9). The average of 3 samples from this zone is 657 ppm or 0.019 oz/t Au. Russ Corn selectively sampled the pyritic portion with assays of 12.7, 12.5 and 4.65 ppm Au. Other selected samples from skarn-like mineralization in the Yellow Breast mine area assayed 6.70, 2.53, and 1.94 ppm Au.

Corn suggested that the quartzite with the actinolite-bearing lens might be an excellent host for gold. Figure 9 shows the location of 22 rock chip samples from brecciated and sericite-altered quartzite along the road leading to the Yellow Breast mine. The average value for the 22 samples is 29 ppb with a range from <5 to 335 ppb. The 335 ppb was sample no. 25 on figure 9. Other quartzite samples throughout the upper plate returned similar low gold values.

Deposition of gold appears to be controlled by permeability contrasts such as brittle deforming units and high-angle or low-angle fault zones. The actinolite-bearing rock is a permeable unit but the quartzite is highly impermeable.

GEOCHEMISTRY

A total of 108 rock chip samples were taken from outcrops, mine workings and dumps in the prospect area. An additional 141 samples were cut by Russ Corn. The Corn samples were analysized only for Au and Ag while the 108 samples were analysized for Au ,Ag, As, Hg, Sb, Cu, Mo, Pb, Zn, W and Ba. Correlations between Au and Cu, Mo, Zn, and to a lesser extent, Pb are good to excellent. Values for Hg, Sb, As, W, and Ba are not significant and do not correlate with high gold values. Overlay maps for each element are attached.

Gold values show clustering along the Granite Wash fault with a marked elongation the the ENE along the trace of the tear faults. Three clusters, shown on the gold overlay with the greater than 50 ppb Au outlined, are present, (1) The magnetite mine, (2) the tear fault trace, and (3) the Yellow Breast mine area. Correlative values for Mo, Cu, Zn, and Pb suggest that the mineralizing system was not epithermal but is consistent with a detachment fault-related system.

GEOPHYSICS

A three line IP and resistivity survey was completed over a gravity-indicated pediment west of the Granite Wash prospect area. All 3 lines were dominantly in covered areas but one line, Line I, traversed bedrock on its east end. The lines in the covered area found uniformly low resistivity and low PFE values except on the east end of Line I where weak PFE values associated with moderately high resistivities are present. The weak PFE and moderate resistivities could be derived from relict sulfides in oxidized massive sulfide associated with the Granite wash fault zone.

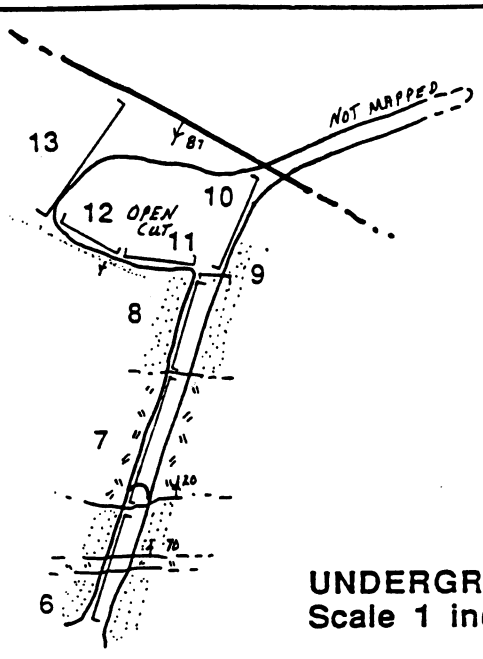
TARGETS

The target is the Granite Wash fault zone and associated mineralization in high-angle fault breccias which are genetically related to the low-angle shear zone. This is basically the detachment fault-related model proposed by Wikins, Heidrick, and Beane(1986). Although the mineral system is not fully defined, it appears to cover about 2 square miles. The Granite Wash fault extends from the Three Musketeers mine to north of the Yellow Breast, and then south to the Magnetite mine where it disappears under cover(figure 1). The entire block of Paleozoic and Mesozoic rocks forms the upper plate to the Granite Wash fault zone. The Yuma mine structure is probably a faulted- or an erosional-segment of the Granite Wash structure. The Granite Wash fault is exposed or inferred over a strike distance of about 10,000 feet. With a gold-and copper-bearing, altered and brecciated zone up to 250 feet thick, on and above the fault, the target area is substantial and could easily contain at least 1,000,000 ounces of gold.

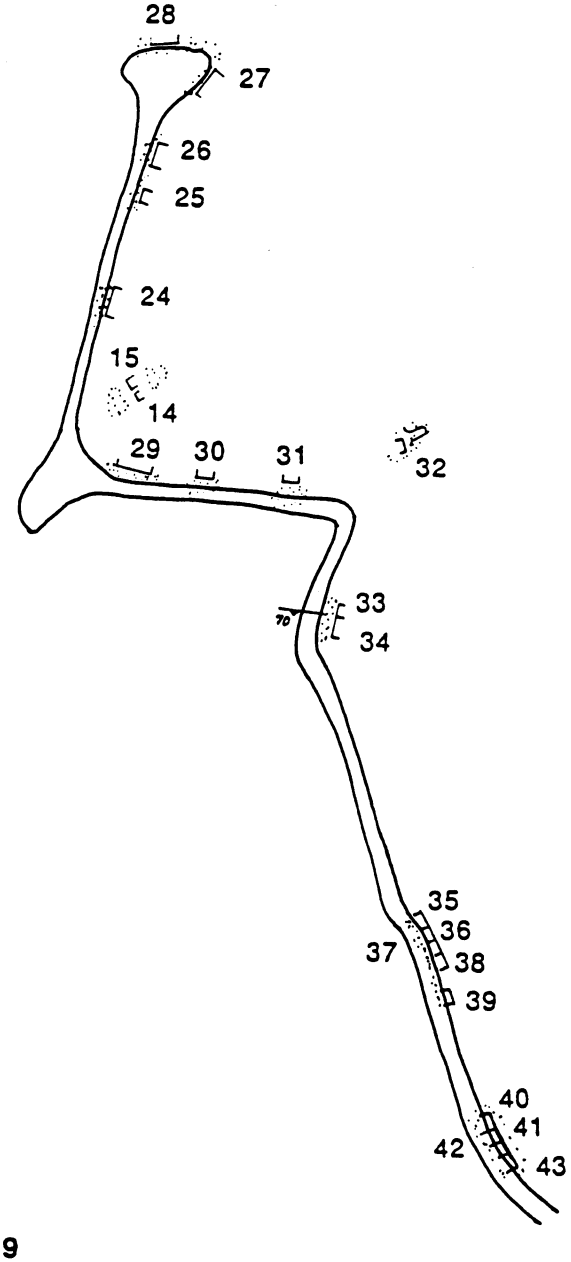
Mapping and sampling are incomplete and targets are not fully defined at this time, additional work is required. Targets developed to date, include the Yellow Breast Mine area and the sericite-altered area half way between Yellow Breast and the Magnetite mine. Both targets show extensive and intense alteration in upper plate rocks and widespread gold+copper values indicative of potential ore zones at and above the Granite Wash Shear zone.

Joe Wilkins

Joe Wilkins
Exploration Consultant
Tucson, Arizona
April 24, 1992



UNDERGROUND WORKINGS
Scale 1 inch = 20 feet



ROAD CUT
Scale 1 inch = 100 feet

GRANITE WASH PROSPECT
LA PAZ COUNTY, ARIZONA
YELLOW BREAST MINE
SAMPLE LOCATION MAP

Joe Wilkins 8/29/91

Figure 9

KENNECOTT

GEOCHEMICAL SAMPLING

PROJECT: GRANITE WASH
GEOLOGIST: JOE WILKINS
DATE: 8/18/91 - 11/15/91

QUAD: E. OF UTTING, 7½
COUNTY: LA PAZ CO.
STATE: ARIZONA

CH-channel
C-chip
R-rock
F-float
T-talus
D-dump
RC- rotary chip
HG-high grade
S-soil
St-stream sed

Sample Number	Location Sec. T. R.	JW #	Rock Description Comments	Type	Au ppb.	Ag	Hg	As / Sb	Cu	Pb	Zn	Mo	W
26521C	26 T.6N. R.15E.	1	Gossan on N75W 20° shear. Cuts ls	C	30	<.2	70	54 / .4	46	40	110	700	760
22C	26	2	bull qtz in footwall of N60E 28° shear	C	<5	<.2	30	4 / .6	30	6	18	2	7
23C	25	3	qtz vn, N24W, 24° cuts qzite	C	35	.4	30	3 / .2	26	63	9	6	16
24C	25	4	Silicified ls w/ minor FeOx	C	5	<.2	20	4 / <.2	20	6	12	<1	3
25C	26	5	contact of Silicified ls - mbls.	D	10		40	20	98	10	36	3	6
26C	24	6	Yellow Breccia: Silicified qtzite	C	10		20	2	26	22	69	<1	3
27C	24	7	" : microdiorite dike	C	<5		18	1	41	3	62	<1	2
28C	24	8	" : qzite, minor actinolite	C	<5		20	1 / <.2	65	16	13	1	<2
29C	24	9	" : qzite, red hematite	C	85		20	3 / .2	110	8	17	7	4
30C	24	10	" : qztite, w/actinolite	C	290		20	5 / <.2	185	4	19	5	2
31C	24	11	" : Actinolite/tremolite	C	15	<.2	20	5	1300	4	21	<1	2
32C	24	12	" : actinolite-tremolite	C	1000	3.4	20	20	2200	10	49	82	3
33C	24	13	" : actinolite-tremolite	C	680	.8	10	9	820	4	48	15	3
34C	24	14	Qtz-tourmaline Vein, N60E. subvertical	C	20	<.2	10	1 / <.2	32	2	20	2	4
35C	24	15	Qzite adj to tourmaline Vn.	C	65	<.2	10	<1 / .2	27	2	17	10	4
36C	24	16	actinolite/tremolite, qtz, gypsum in ss	C	660	1.3	70	1 / .2	51	32	82	98	7
37C	24	17	Gossan on N60W. 30-50°S Shear Zone	D	850	.8	58	1 / .2	51	42	96	170	9
38C	19	18	Fault Cutting qzite w/ qtz-ser alt.	D	6	<.2	20	<1 / <.2	9	3	8	<1	6
39C	19	19	Gossan, on flt Zn, bio-ser-chl, CuOx	D	3660	5.1	10	3	5700	4	97	14	3
40C	19	20	Bull qtz vein	C	75	<.2	30	1	110	2	26	<1	18
41C	24	21	Fault bn (N80W, 58°) qtz, qtz-ser alt CuOx	D	50	.8	20	6	3500	10	33	1	4
42C	24	22	Massive to Semi Massive Sulfide: Py-Cpy-bn-Mt.	HG	570	8.1	30	6	710,000	4	470	47	125
43C	19	23	Magnetite-gossan lens w/CuOx on N40W 52°E Shear.	C	2540	2.3	10	2	400	16	59	9	65
44C	24	24	Marbelized ls. w/ diss Py, serick alt.	C	15	<.2	20	1 / <.2	102	13	29	1	3
326450	24 T.6N. R.15E.	25	Silica-bearing ls w/ diss py, sericite alt	C	335	<.2	10	3 / .2	192	22	12	2	<2

KENNECOTT

GEOCHEMICAL SAMPLING

PROJECT: GRANITE WASH
GEOLOGIST: Joe Wilkins
DATE: 8/18/91 – 11/15/91

QUAD: East of Utting 7½
COUNTY: La Paz
STATE: Arizona

C-chip
R-rock
F-float
T-talus
D-dump
RC- rotary chi
HG-high grade
S-soil
St-stream sed

Sample Number	Location Sec. T. R.	JW #	Rock Description Comments	Type	Au	Ag	Hg	As / Sb	Cu	Pb	Zn	Mo	W
3546C	24 T.6N. R.15W.	76	Silicified, carbonate-rich quartzite, diss Py	C	10	<.2	10	1 / <.2	42	48	7	<1	<2
47C	24		Quartzite + tremolite/actinolite, Sericite, diss Py.	C	<5		10	1 / .2	55	14	16		<2
48C	24		Quartzite + trem/act. Sericite/serp. qtz Vnlts	C	35		10	1 / .2	94	36	20		2
49C	24		Quartzite, hematite-Stained	C	<5		10	<1 / <.2	18	4	20		<2
50C	24		Quartzite, Sericite, minor Py → FeOx	C	<5		20	/ <.2	20	2	20		3
51C	24		Quartzite, Sericite, qtz Vnlts, diss Py	C	<5		10	<1 / <.2	10	4	12	<1	2
52C	24		Pyritic quartz-sericite schist. FeOx > 10 %	C	25		10	2 / .2	16	4	23	1	3
53C	24		Gneissic-textured volcanoclastic unit.	C	30		10	1 / <.2	141	6	61	4	3
54C	24		Same as above, but ~90% silica; diss Py	C	5		10	<1 / <.2	26	4	15	1	2
55C	24		Pyritic Quartzite, Silicified w/qtz vnlts, 1-3% Py ox	C	30	<.2	70	4 / <.2	91	36	26	3	8
56C	24		Same	C	10	.4	30	1 / <.2	111	18	36	2	7
57C	24		Same	C	10	<.2	30	1 / <.2	58	22	20	2	8
58C	24		Same	C	<5		20	1 / <.2	31	18	17	12	7
59C	24		Quartzite w/ strong Gypsum.	C	15		40	2 / <.2	18	8	10	30	4
60C	24		Silicified Quartzite w/ red-brn hematite.	C	<5	<.2	20	1 / <.2	12	10	8	3	8
61C	24		Same	C	<5		30	1 / <.2	6	6	5	5	10
62C	24		Same	C	<5	<.2	20	1 /	6	7	5	6	7
63C	24		Same; decreasing FeOx & Silica	C	25	.5	20	<1 / <.2	17	4	7	3	6
64C	25		Pyritic Quartzite, N60E fault zone	C				NO	ASSAY				
3656C	25 T.6N. R.15W.		Marbelized ls w/ qtz Vnlts. diss Py.	C				NO	ASSAY				
3666 67C	30 T.6N. R.14W.		Magnetite mine: Gossan-Cu Ox-epidote-Actinolite	D	315	5.1	90	12 / 1.6	>10,000	18	237	230	N/A
68C	30		" Actinolite-epi-qtz in Clastics	C	20	.9	50	10 / .8	205	30	135	4	
69C	30		" Sheared, Silicified Quartzite	C	<5	.3	20	<1 / <.2	43	15	20	6	
70C	30		" Carbonate - diss. Magnetite on 45°N Shear	C	25	.3	130	22 / 1.4	480	12	100	20	
3667 1C	30 T.6N. R.14W.	50	Low angle Shear, Cu Ox = Mag-hem-Carb.	C	<5	.4	20	<1 / <.2	1650	2	20	7	N/A

KENNECOTT

GEOCHEMICAL SAMPLING

PROJECT: GRANITE WASH
GEOLOGIST: Joe Wilkins
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QUAD: East of Utting 7½
COUNTY: LA PAZ
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D-dump
RC- rotary chip
HQ-high grade
S-soil
St-stream sed

Sample Number	Location Sec.	T.	R.	JW #	Rock Description Comments	Type	Au ppb	Ag	Hg	As	Sb	Cu	Pb	Zn	Mo	Ba
72C	30	T.6 N.	R.14 W.	51	Magnetite Mine : 28° shear, Magnetit-hem-qtz-on Shear.	C	<5	<.2	20	<1	.2	27	3	7	4	1000
73C	30				" : Py Gossan, Cu Ox, epi, dolo on Shear	C	170	.6	40	22	<.2	5900	10	436	118	280
74C	30				" : Magnetit + Gossan - epidot on Shear	C	50	5.0	80	104	.2	4500	31	147	106	60
75C	30				" : Sheared Clastics, Jasp+ser+chl+Carb+Py	C	45	.3	20	5	<.2	1300	22	193	160	60
76C	30				" : Magnetit + Cu Ox + hem + epi + dolo on shear	C	20	6.2	30	9	.2	3500	52	116	15	80
77C	30				" : base of mag., red hem w/ Cu Ox on shear	C	55	.5	310	9	.6	2400	20	52	30	20
78C	30				" : hem-stained Clastics above shear.	C	<5	<.2	40	7	.6	27	12	67	2	1466
79C	30				" : Magnetite + hem + epi + chl + dolo on shear	D	250	36.0	410	22	<.2	5000	5	78	6	40
80C	30				" : base of Magnetit, oct/trem + dolo on shear	C	3280	.2	100	12	4.8	27	5	600	9	80
81C	30				Yuma mine : red Jasp on mblgd ls.	C	320	.5	70	40	.2	>10,000	12	144	38	60
82C	30				Gossan in low-angle shear, Cu Ox, gyp, on shear	D	705	4.4	30	20	.2	7000	5	57	48	40
83C	30				Gossan w/ relict py-cpy, Cu Ox on shear	D	190	2.5	30	42	<.2	1250	9	65	29	40
84C	30				Carbonate - Clastic bx on Shear on shear	D	35	.6	20	2		550	18	40	115	560
85C	30				Gossan w/ magnetite Cuts Sheared dolo on shear	C	425	2.6	10	5		1250	1	90	243	80
86C	30				Silicified Quartzite, bull Qtz.	C	15	.4	20	<1		67	10	6	60	140
87C	30				Quartzite w/ veins - veinlets	C	<5	.3	20	<1		32	7	9	1	240
88C	19				White Jasperoid at ls-quartzite Contact	C	15	.6	20	<1		18	4	3	1	100
89C	30				Dolo - Wollast - oct - chl - Sericite - trem. gossan on shear	C	90	3.3	10	2		1300	4	650	240	140
90C	30				Jasperoid in gypsum-bearing ss. diss Py on shear	C	<5	.3	10	4		33	7	16	5	360
91C	30				Sericit altd Clastic on shear.	D	<5	.3	30	<1	<.2	34	8	380	4	160
92C	30				Gossan + Cu Ox replacing bxtd ls.	C	45	2.0	30	84	1.6	2300	360	>10,000	10	40
93C	30				Gossan + Cu Ox replacing bxtd ls	D	190	>100.0	1600	44	3.4	>10,000	950	>10,000	100	20
94C	30				Silicified Quartzite w/ qtz veins,	C	<5	.9	20	1	<.2	310	415	185	5	180
95C	30				qtz - ser altered Clastics. 2-5% diss py.	C	125	1.0	40	4	<.2	560	142	150	7	1100
96C	30	T.6 N.	R.14 W.	75	Qtz - Qtz bx replacing bxtd dolo, ab Cu Ox	D	340	15.5	290	9	<.2	3000	337	30	212	100

KENNECOTT

GEOCHEMICAL SAMPLING

PROJECT: GRANITE WASH
GEOLOGIST: JOE WILKINS
DATE: 8/10/91 to 11/15/91

QUAD: East of UTTING 7½
COUNTY: LA PAZ
STATE: ARIZONA

CH-channel
C-chip
R-rock
F-float
T-talus
D-dump
RC- rotary chip
HG-high grade
S-soil
SI-stream sed

Sample Number	Location Sec.	T.	R.	Rock Description Comments	Type	Au	Ag	Hg	As / Sb	Cu	Pb	Zn	Mo	Ba
36697C	30	T.6N.	R.14W.	Sericite - altered Volcanic, hematite bleached on shear	C	<5	.4	30	14 / .2	39	37	47	8	1300
98C	30			Jasperoidal Quartzite, silica flooded, minor FeOx	C	<5	.4	30	3 / 2.0	49	49	24	4	200
99C	30			Carbonate unit, bx-gouge	C	10	<.2	20	1 / .6	62	22	40	3	300
36700C	30			Carbonate - replaced by Qtz-Qtz bx gossan CuOx	C	1030	6.3	350	94 / .8	>10,000	95	245	75	360
701C	30			Carbonate - epidote contact, N30W, 70W	C	<5	.2	40	17 / .6	88	11	56	2	300
702C	30			Gossan Cutting Sheared dolo	C	25	10.0	600	16 / <.2	190	87	60	270	60
703C	30			Epidote repl Carb on N-S, 80°-50°E shear	C	30	1.0	90	3 / .4	1750	11	90	37	120
704C	30			Gossan, in sheared dolo, minor CuOx at base	C	90	3.6	1300	128 / .4	1800	40	60	255	120
705C	30			Shear Zn, N30W, Low-angle, ab CuOx	C	425	1.8	170	14 / .6	7900	16	78	320	80
706C	25			Ls, bx-qg along 35°W. dipping Shear. CuOx	C	75	.3	80	24 / 1.0	5200	45	200	10	160
707C	25			Ls, bx-qg on 15° dip Shear, Jasp+FeOx+CuOx	C	110	.8	30	22 / 1.2	>10,000	13	130	2	100
708C	25			Ls, bx-qg S-dipping Shear, Chl-Mag-hem, CuOx	D	330	18.8	90	74 / 1.2	>10,000	18	1700	7	40
709C	25			Ls-quartzite Contact w/lamprophyre, 5-7% ox.Pyrite	C	<5	.3	10	6 / <.2	130	12	17	8	660
710C	25	T.6N.	R.14W.	Ls at Contact w/lamprophyre, ashes has minor CuOx	C	5	.2	10	26 / .2	330	155	64	4	160
11C	24	T.6N.	R.15W.	Three Musketeers: Qtz-Carb-mica-Chl Vn on Shear	C	25	6.0	20	1 / .2	76	177	130	9	80
12C	24			" : Qtz-Carb-Chl vn on Shear	C	240	2.4	40	3	69	280	300	9	140
13C	24			" : Qtz-Carb-Chl vn minor CuOx on Shear	C	10	1.1	10	1	19	11	183	3	220
14C	24	T.6N.	R.15W	" : Qtz-Carb-Chl vn on Shear	C	10	.8	10	1	31	52	212	6	220
15C	30			Quartzite, w/Qtz Vnlts, Strong Sericite	C	<5	.2	10	<1	17	6	14	<1	240
16C	30			Quartzite, Streaks Ser+Chl, minor FeOx	C	<5	<.2	10		15	4	11	3	620
17C	30			Sheared Contact, E-W 60°S Clasts+hem+chl+ser then lamp.	C	<5	<.2	20		31	9	40	1	240
18C	30			Quartzite w/Qtz Vnlts, Strong hem→py	C	20	3.0	20	<1	13	110	6	3	640
19C	19			Gossan in Ls on Shear Zn, epi on Shear	D	105	1.6	160	12	500	6	8600	4	180
20C	19			Bull Qtz Cutting Quartzite, Sericite	C	<5	.7	40	<1 / <.2	13	27	51	4	100
34721C	19			Epidotized ls, stkwrk red hem.	C	<5	<.2	20	6 / 2	35	3	122	3	91

KENNECOTT

GEOCHEMICAL SAMPLING

PROJECT: GRANITE WASH
GEOLOGIST: JOE WILKINS
DATE: 8/18/91 to 11/15/91

QUAD: EAST OF UTTING and HARCUVAR 7 ½
COUNTY: LA PAZ
STATE: ARIZONA.

CH-channel
C-chip
R-rock
F-float
T-talus
D-dump
RC- rotary chip
HG-high grade
S-soil
St-stream sed

Sample Number	Location Sec. T. R.	JW JF	Rock Description Comments	Type	Au	Ag	Hg	As / Sb	Cu	Pb	Zn	Mo	Ba
36723C	30 T.6N. R.14W.	102	Quartz w/ FeOx + CuOx in Shear Zone	C	<5	<.2	80	3 <.2	12	17	14	10	680
36724C	30 T.6N. R.14W.		Hematite-Stained dolomite.	D	15	<.2	330	17 .8	15	35	58	4	1100
	HARCUVAR QUAD												
36725C	30 T.6N. R.14W.		Yuma MINE: actinolite-dolo-gossan-CuOx on Shear.	D	320	3.7	50	6 <.2	7900	3	128	155	60
26C	30		" Sanded dolo + epi + act + gossan CuOx	D	155	3.3	130	6 .8	>10,000	3	90	168	40
27C	30		" actinolite-dolo-epi-gossan-CuOx Shear	C	40	1.0	40	10 .2	1450	2	66	92	20
28C	30		" CuOx ore; chrys-Az, grn in sheared dolo	HC. D	1210	7.8	240	22 1.6	>10000	2	1500	260	20
36729C	30 T.6N. R.14W.	108	" Gossan from Shear, adj to 26728C.	H.G. D	580	7.8	160	20 2.8	>10000	6	2800	170	20

Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: KENNECOTT EXPLORATION CO.

P.O. BOX 11248
SALT LAKE CITY ,UTAH
84147

Project :
Comments: ATTN: LINUS KEATING CC:JOE WILKINS

Page Number :1
Total Pages :2
Certificate Date: 31-AUG-91
Invoice No. :19120332
P.O. Number :

CERTIFICATE OF ANALYSIS A9120332

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Cu ppm	Mo ppm	Hg ppb	Pb ppm	Sb ppm	Zn ppm	W ppm	Ba ppm
36521 C	205	294	30	< 0.2	54	46	700	70	40	0.4	110	750	460
36522 C	205	294	< 5	< 0.2	4	30	2	30	6	0.6	18	7	900
36523 C	205	294	35	0.4	3	26	6	30	63	0.2	9	16	240
36524 C	205	294	5	< 0.2	4	20	< 1	20	6	< 0.2	12	3	1800
36525 C	205	294	10	< 0.2	20	98	3	40	10	< 0.2	36	6	400
36526 C	205	294	10	< 0.2	2	26	< 1	20	22	< 0.2	69	3	420
36527 C	205	294	< 5	< 0.2	1	41	< 1	10	3	< 0.2	62	2	440
36528 C	205	294	< 5	< 0.2	1	65	1	20	16	< 0.2	13	< 2	560
36529 C	205	294	85	< 0.2	3	110	7	20	8	0.2	17	4	520
36530 C	205	294	290	< 0.2	5	185	5	20	4	< 0.2	19	2	400
36531 C	205	294	15	< 0.2	5	1300	< 1	20	4	< 0.2	21	2	900
36532 C	205	294	1000	3.6	20	2200	82	20	10	< 0.2	49	3	100
36533 C	205	294	680	0.8	9	820	15	10	4	< 0.2	48	3	120
36534 C	205	294	20	< 0.2	1	32	2	10	2	< 0.2	20	4	220
36535 C	205	294	65	< 0.2	< 1	27	10	10	2	0.2	17	4	540
36536 C	205	294	660	1.3	1	51	98	70	32	0.2	82	7	420
36537 C	205	294	850	0.8	1	51	170	50	42	< 0.2	96	9	40
36538 C	205	294	5	< 0.2	< 1	9	< 1	20	3	< 0.2	8	6	320
36539 C	205	294	3660	5.1	3	5700	14	10	4	< 0.2	97	3	120
36540 C	205	294	75	< 0.2	1	110	< 1	30	2	< 0.2	26	18	160
36541 C	205	294	50	0.8	6	3500	1	20	10	< 0.2	33	4	200
36542 C	205	294	570	8.1	6	>10000	47	30	4	< 0.2	470	125	20
36543 C	205	294	2540	2.3	2	400	9	10	10	< 0.2	59	65	180
36544 C	205	294	15	< 0.2	1	102	1	20	13	< 0.2	29	3	380
36545 C	205	294	335	< 0.2	3	192	2	10	22	0.2	12	< 2	1240
36546 C	205	294	10	< 0.2	1	42	< 1	10	48	< 0.2	7	< 2	1000
36547 C	205	294	< 5	< 0.2	1	55	< 1	10	14	0.2	16	< 2	740
36548 C	205	294	35	< 0.2	1	94	< 1	10	36	0.2	20	2	620
36549 C	205	294	< 5	< 0.2	< 1	18	< 1	10	4	< 0.2	20	< 2	300
36550 C	205	294	< 5	< 0.2	< 1	20	< 1	20	2	< 0.2	20	3	300
36551 C	205	294	< 5	< 0.2	< 1	10	< 1	10	4	< 0.2	12	2	220
36552 C	205	294	25	< 0.2	2	16	1	10	4	0.2	23	3	600
36553 C	205	294	30	< 0.2	1	141	4	10	6	< 0.2	61	3	960
36554 C	205	294	5	< 0.2	< 1	20	1	10	4	< 0.2	15	2	240
36555 C	205	294	30	< 0.2	4	91	3	70	36	< 0.2	26	8	340
36556 C	205	294	10	0.4	1	111	2	30	18	< 0.2	36	7	280
36557 C	205	294	10	< 0.2	1	58	2	30	22	< 0.2	20	8	280
36558 C	205	294	< 5	< 0.2	1	31	12	20	18	< 0.2	17	7	240
36559 C	205	294	15	< 0.2	2	18	30	40	8	< 0.2	10	4	400
36560 C	205	294	< 5	< 0.2	1	12	3	20	10	< 0.2	8	8	300

CERTIFICATION: Stewart Buchler

Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: KENNECOTT EXPLORATION CO.

P.O. BOX 11248
SALT LAKE CITY ,UTAH
84147

Project :
Comments: ATTN: LINUS KEATING CC:JOE WILKINS

Certificate Date: 31-AUG-91
Invoice No. :I9120332
P.O. Number :

CERTIFICATE OF ANALYSIS A9120332

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Cu ppm	Mo ppm	Hg ppb	Pb ppm	Sb ppm	Zn ppm	W ppm	Ba ppm
36561 C	205	294	< 5	< 0.2	1	6	5	30	6	< 0.2	5	10	120
36562 C	205	294	< 5	< 0.2	1	6	6	20	7	< 0.2	5	7	80
36563 C	205	294	25	0.5	< 1	17	3	20	4	< 0.2	7	6	900

CERTIFICATION: Hasit Bichler

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: KENNECOTT EXPLORATION CO.

P.O. BOX 11248
SALT LAKE CITY ,UTAH
84147

Project : GRANITE WASH
Comments: ANNT: LINUS KEATING CC: JOE WILKINS

Page Number :1
Total Pages :2
Certificate Date: 26-NOV-91
Invoice No. :19124971
P.O. Number :
Account :GJV

CERTIFICATE OF ANALYSIS A9124971

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm Aqua R	As ppm	Cu ppm	Mo ppm	Hg ppb	Pb ppm	Sb ppm	Zn ppm	Ba ppm
46-NO. 36667C	205 294	315	5.1	12	>10000	230	90	18	1.6	237	60
47-NO. 36668C	205 294	20	0.9	10	205	4	50	30	0.8	135	130
48-NO. 36669C	205 294	< 5	0.3	< 1	43	6	20	15	< 0.2	20	300
49-NO. 36670C	205 294	25	0.3	22	480	20	130	12	1.4	100	100
50-NO. 36671C	205 294	< 5	0.4	< 1	1650	7	20	2	< 0.2	20	280
51-NO. 36672C	205 294	< 5	< 0.2	< 1	27	4	20	3	0.2	7	1000
52-NO. 36673C	205 294	170	0.6	22	5900	110	40	10	< 0.2	430	280
53-NO. 36674C	205 294	50	5.0	104	4500	100	80	31	0.2	147	60
54-NO. 36675C	205 294	45	0.3	5	1300	160	20	22	< 0.2	193	60
55-NO. 36676C	205 294	20	6.2	9	3500	15	30	52	0.2	110	80
56-NO. 36677C	205 294	55	0.5	9	2400	30	310	20	0.2	52	20
57-NO. 36678C	205 294	< 5	< 0.2	7	27	2	40	12	0.6	67	1460
58-NO. 36679C	205 294	250	36.0	22	5000	6	410	5	0.6	78	40
59-NO. 36680C	205 294	3280	0.2	12	27	9	100	5	< 0.2	600	80
60-NO. 36681C	205 294	320	0.5	40	>10000	38	70	12	4.8	144	60
61-NO. 36682C	205 294	705	4.4	20	7000	48	30	5	0.2	57	40
62-NO. 36683C	205 294	190	2.5	42	1250	29	30	9	0.2	65	40
63-NO. 36684C	205 294	35	0.6	2	550	115	20	18	< 0.2	40	560
64-NO. 36685C	205 294	425	2.6	5	1250	243	30	1	< 0.2	90	80
65-NO. 36686C	205 294	15	0.4	< 1	67	60	10	10	< 0.2	6	140
66-NO. 36687C	205 294	< 5	0.3	< 1	32	1	20	7	< 0.2	9	240
67-NO. 36688C	205 294	15	0.6	< 1	18	1	20	4	< 0.2	3	100
68-NO. 36689C	205 294	90	3.3	2	1300	240	20	4	< 0.2	650	140
69-NO. 36690C	205 294	< 5	0.3	4	33	5	10	7	< 0.2	16	360
70-NO. 36691C	205 294	< 5	0.3	< 1	34	4	10	8	< 0.2	380	160
71-NO. 36692C	205 294	45	2.0	84	2300	10	30	360	1.6	>10000	40
72-NO. 36693C	205 294	190	>100.0	44	>10000	100	1600	950	3.4	>10000	20
73-NO. 36694C	205 294	< 5	0.9	1	310	5	20	415	< 0.2	185	180
74-NO. 36695C	205 294	125	1.0	3	560	7	40	142	< 0.2	150	1100
75-NO. 36696C	205 294	340	15.5	9	3000	212	290	337	< 0.2	30	100
76-NO. 36697C	205 294	< 5	0.4	14	39	8	30	37	0.2	47	1300
77-NO. 36698C	205 294	< 5	0.4	3	49	4	30	49	2.0	24	200
78-NO. 36699C	205 294	10	< 0.2	1	62	3	20	22	0.6	40	300
79-NO. 36700C	205 294	1030	6.3	94	>10000	75	350	95	0.8	245	360
80-NO. 36701C	205 294	< 5	0.2	17	88	2	40	11	0.6	56	300
81-NO. 36702C	205 294	25	10.0	15	190	270	600	87	< 0.2	60	60
82-NO. 36703C	205 294	30	1.0	3	1750	37	90	11	0.4	90	120
83-NO. 36704C	205 294	90	3.6	128	1800	255	1300	40	0.4	60	120
84-NO. 36705C	205 294	425	1.8	14	7900	320	170	16	0.6	78	80
85-NO. 36706C	205 294	75	0.3	24	5200	10	80	45	1.0	200	160

CERTIFICATION: Mark Vmh

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: KENNECOTT EXPLORATION CO.

P.O. BOX 11248
SALT LAKE CITY ,UTAH
84147

Project : GRANITE WASH
Comments: ANNT: LINUS KEATING CC: JOE WILKINS

Page Number :2
Total Pages :2
Certificate Date: 26-NOV-91
Invoice No. :19124971
P.O. Number :
Account :GJV

CERTIFICATE OF ANALYSIS A9124971

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Cu ppm	Mo ppm	Hg ppb	Pb ppm	Sb ppm	Zn ppm	Ba ppm
86-NO. 36707C	205	294	110	0.8	22	>10000	2	30	13	1.2	130	100
87-NO. 36708C	205	294	330	18.8	74	>10000	7	90	10	1.2	1700	40
88-NO. 36709C	205	294	< 5	0.3	6	130	8	10	12	< 0.2	17	660
89-NO. 36710C	205	294	5	0.2	26	330	4	10	155	0.2	64	160
90-NO. 36711C	205	294	25	6.0	1	76	9	20	177	0.2	130	80
91-NO. 36712C	205	294	240	2.4	3	69	9	40	280	< 0.2	300	140
92-NO. 36713C	205	294	10	1.1	1	19	3	10	11	< 0.2	183	220
93-NO. 36714C	205	294	10	0.8	1	31	6	10	52	< 0.2	212	220
94-NO. 36715C	205	294	< 5	0.2	< 1	17	< 1	10	6	< 0.2	14	240
95-NO. 36716C	205	294	< 5	< 0.2	< 1	15	3	10	4	< 0.2	11	620
96-NO. 36717C	205	294	< 5	< 0.2	< 1	31	1	20	9	< 0.2	40	240
97-NO. 36718C	205	294	20	3.0	< 1	13	3	20	110	< 0.2	6	640
98-NO. 36719C	205	294	105	1.6	12	500	4	160	6	< 0.2	8600	120
99-NO. 36720C	205	294	< 5	0.7	< 1	13	4	40	27	< 0.2	51	100
100-NO. 36721C	205	294	< 5	< 0.2	6	35	3	20	3	0.2	122	80
101-NO. 36722C	205	294	220	0.6	14	68	8	200	7	0.2	40	140
102-NO. 36723C	205	294	< 5	0.2	3	12	10	80	17	< 0.2	14	680
103-NO. 36724C	205	294	15	< 0.2	17	15	4	330	35	0.8	58	1100
36725	205	294	320	3.7	6	7900	155	50	3	< 0.2	128	60
36726	205	294	155	3.3	6	>10000	168	130	3	0.8	90	40
36727	205	294	40	1.0	10	1450	92	40	2	0.2	66	20
36728	205	294	1210	7.8	22	>10000	260	240	2	1.6	1500	20
36729	205	294	580	7.8	20	>10000	170	160	6	2.8	2800	20

CERTIFICATION:

GRANITE WASH. ARIZONA.

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: KENNECOTT EXPLORATION CO.
P.O. BOX 11248
SALT LAKE CITY UTAH
84147

Page Number 1
Total Pages 2
Certificate Date 31-AUG-91
Invoice No. I-9120332
P.O. Number :

Project :
Comments: ATTN: LINUS KEATING CC:JOE WILKINS

CERTIFICATE OF ANALYSIS A9120332

SAMPLE DESCRIPTION		PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Cu ppm	Mo ppm	Hg ppb	Pb ppm	Sb ppm	Zn ppm	W ppm	Ba ppm
36521	1	205	294	30	< 0.2	54	46	700	70	40	0.4	110	750	460
36522		205	294	< 5	< 0.2	4	30	2	30	6	0.6	18	7	900
36523		205	294	35	0.4	3	26	6	30	63	0.2	9	16	240
36524		205	294	5	< 0.2	4	20	< 1	20	6	< 0.2	12	3	1800
36525	5	205	294	10	< 0.2	20	98	3	40	10	< 0.2	36	6	400
36526	6	205	294	10	< 0.2	2	26	< 1	20	22	< 0.2	69	3	420
36527		205	294	< 5	< 0.2	1	41	< 1	10	3	< 0.2	62	2	440
36528		205	294	< 5	< 0.2	1	65	1	20	16	< 0.2	13	< 2	560
36529		205	294	85	< 0.2	3	110	7	20	8	0.2	17	4	520
36530	10	205	294	290	< 0.2	5	185	5	20	4	< 0.2	19	2	400
36531	11	205	294	15	< 0.2	5	1300	< 1	20	4	< 0.2	21	2	900
36532		205	294	1000	3.6	20	2200	82	20	10	< 0.2	49	3	100
36533		205	294	680	0.8	9	820	15	10	4	< 0.2	48	3	120
36534		205	294	20	< 0.2	1	32	2	10	2	< 0.2	20	4	220
36535	15	205	294	65	< 0.2	< 1	27	10	10	2	0.2	17	4	540
36536	16	205	294	660	1.3	1	51	98	70	32	0.2	82	7	420
36537		205	294	850	0.8	1	51	170	50	[illegible]	< 0.2	96	9	40
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36541	21	205	294	50	0.8	6	3500	1	20	10	< 0.2	33	4	200
36542		205	294	570	8.1	6	>10000	47	30	4	< 0.2	470	125	20
36543		205	294	2540	2.3	2	400	9	10	10	< 0.2	59	65	180
36544		205	294	15	< 0.2	1	102	1	20	13	< 0.2	29	3	380
36545	25	205	294	335	< 0.2	3	192	2	10	22	0.2	12	< 2	1240
36546	26	205	294	10	< 0.2	1	42	1	10	48	< 0.2	7	< 2	1000
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36550	30	205	294	< 5	< 0.2	< 1	20	< 1	20	2	< 0.2	20	3	300
36551	31	205	294	< 5	< 0.2	< 1	10	< 1	10	4	< 0.2	12	2	220
36552		205	294	25	< 0.2	2	16	1	10	4	0.2	23	3	600
36553		205	294	30	< 0.2	1	141	4	10	6	< 0.2	61	3	960
36554		205	294	5	< 0.2	< 1	20	1	10	4	< 0.2	15	2	240
36555	35	205	294	30	< 0.2	4	91	3	70	36	< 0.2	26	8	340
36556	36	205	294	10	0.4	1	111	2	30	18	< 0.2	36	7	280
36557		205	294	10	< 0.2	1	58	2	30	22	< 0.2	20	8	280
36558		205	294	< 5	< 0.2	1	31	12	20	18	< 0.2	17	7	240
36559		205	294	15	< 0.2	2	18	36	40	8	< 0.2	10	4	400
36560	40	205	294	< 5	< 0.2	1	12	3	20	10	< 0.2	8	8	300

08/31/91 11:20PM CHEMEX LABS VANCOUVER PAGE 02

CORN & AHERN
CONSULTING GEOLOGISTS
8425 Desert Steppes Dr.
Tucson, Arizona 85710
(602) 298-1770

July 15, 1991

NORTHWESTERN GRANITE WASH MOUNTAINS PROSPECT
LA PAZ COUNTY, ARIZONA

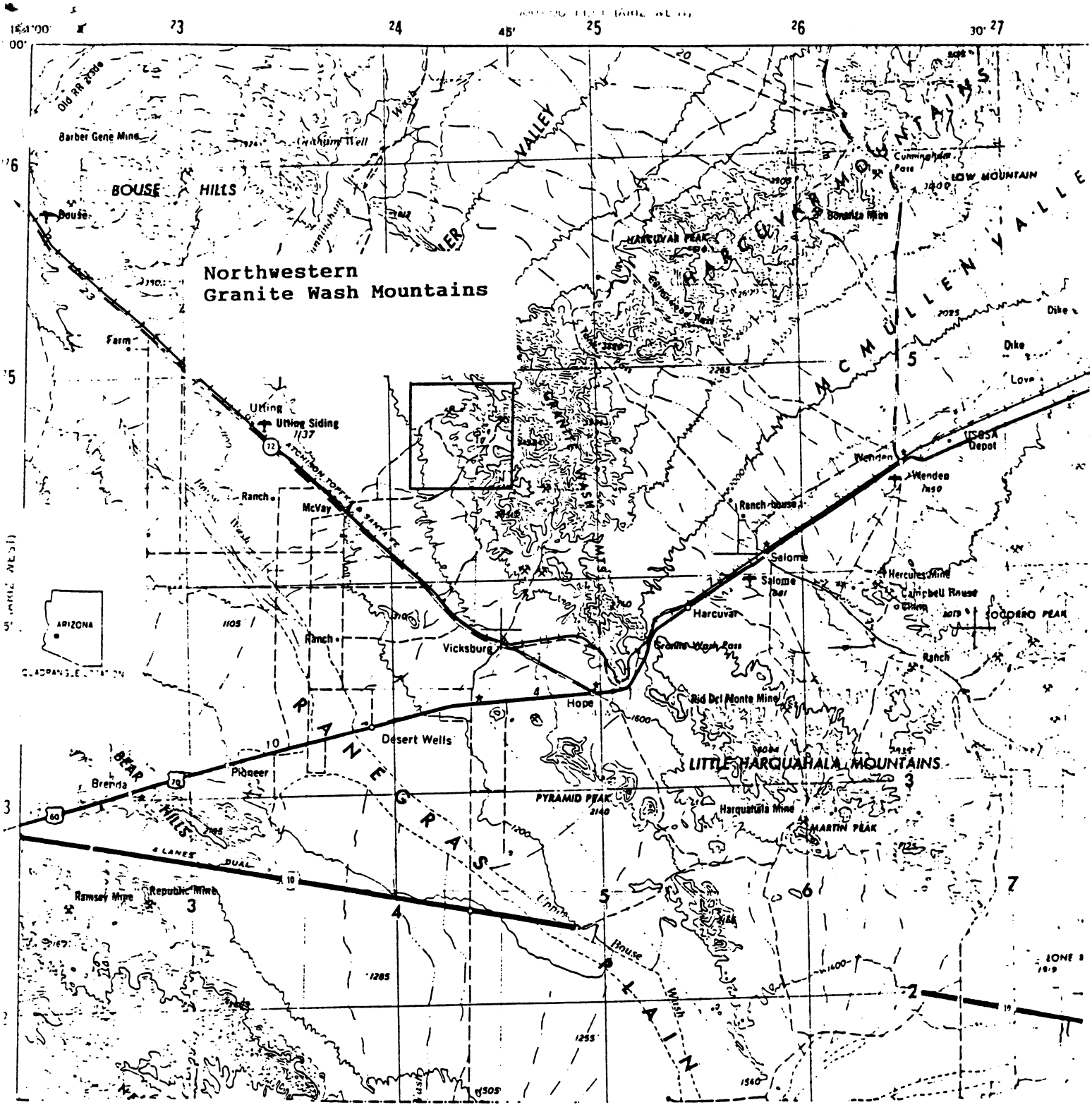
Summary

The Northwestern Granite Wash Mountain Area of La Paz County, Arizona is submitted as a prospect favorable for skarn copper-gold and replacement-type gold mineralization. Reconnaissance geologic investigations throughout the Granite Wash Mountains have indicated that mineralization is closely associated with a major low-angle shear zone that separates larger lithotectonic units. The investigations also indicated that the non-vein, diffuse type of gold-copper mineralization, localized in and adjacent to sheared, competent, brittle and reactive rocks, could provide an exploration target with sufficient grade and size potential to be of interest. In the Northwestern Granite Wash Mountains, the major low-angle shear zone is superimposed on Paleozoic sedimentary rocks, including competent, thin-bedded quartzite, skarn and reactive carbonates and has localized extensive copper, iron and tungsten mineralization as well as the non-vein gold mineralization. This shear zone and potential associated gold and copper-gold mineralization is concealed beneath unmineralized rocks and pediment gravels.

General

The Northwestern Granite Wash Mountain Prospect of La Paz County, Arizona is submitted to Kennecott Exploration Company under the Finders Agreement dated July 9, 1991. As outlined on the attached topographic map, the general area comprises the SE¼ of T6N, R15W and six adjacent sections in T6N, R14W. The specific area of exploration potential is that area underlain by major low-angle faults and structurally deformed Paleozoic and Mesozoic sedimentary rocks in Secs 19, 20, 29, 30, 31 and 32, T6N, R14W; and Secs 22, 23, 24, 25, 26, 27, 34, 35, and 36, T6N, R15W, La Paz County, Arizona. The area outlined has a favorable exploration potential for replacement-type gold mineralization and copper-gold skarn hosted by low-angle sheared and brecciated zones in quartzite and reactive carbonate rocks.

Gold prospects in the Granite Wash Mountains were first discovered in the 1860's but there was little active mining until after completion of the railroad

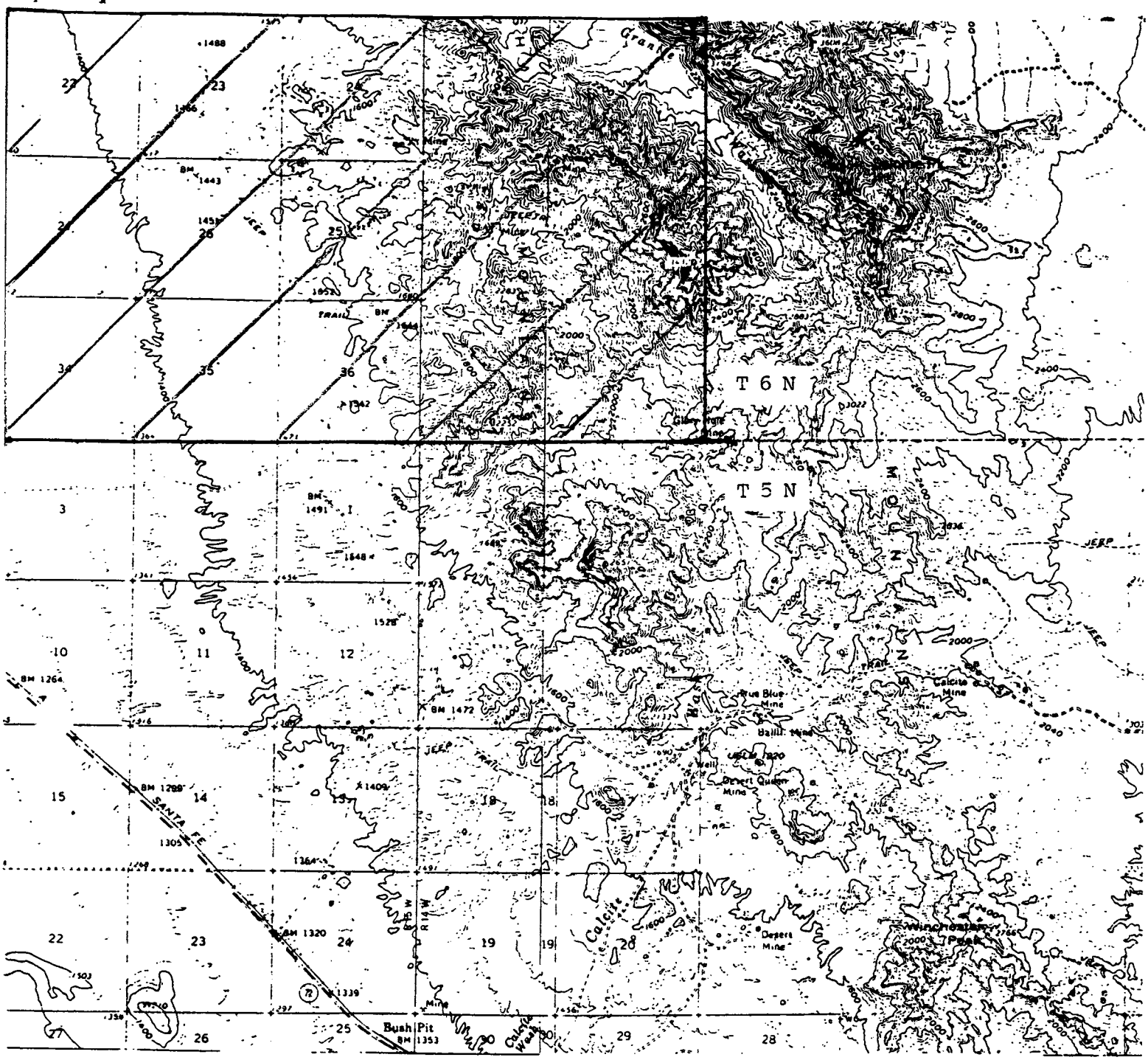


Scale 1:250,000

INDEX MAP

Showing the Location of the
Northwestern Granite Wash Mountains
La Paz County, Arizona

R.M. Corn



NORTHWESTERN GRANITE WASH MOUNTAINS PROSPECT

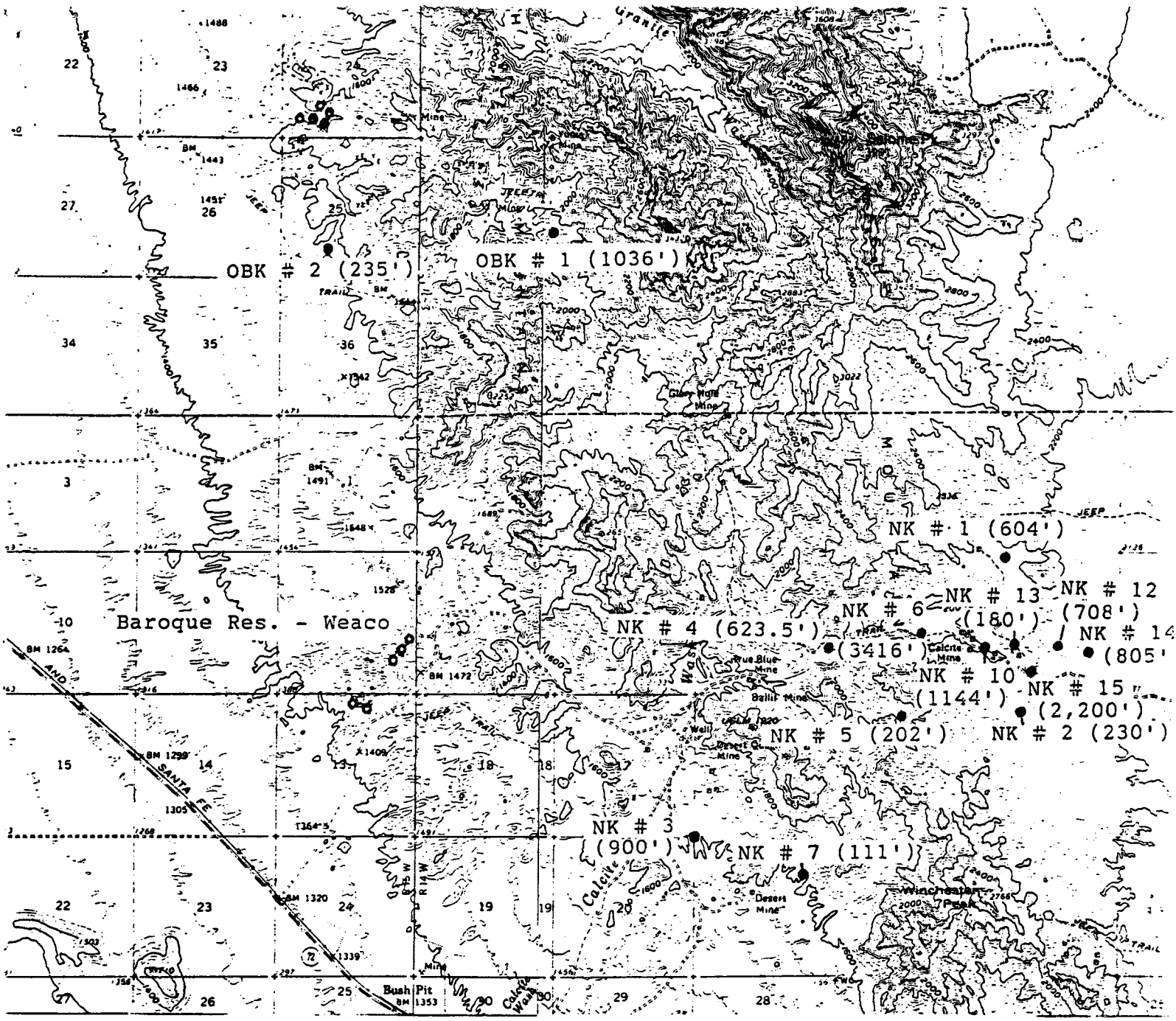
La Paz County, Arizona

Submitted by Corn & Ahern

July, 1991

in the early 1900's. Other periods of activity included the 1930's, 1940's and the 1950's when there was active exploration for the production of tungsten. the largest mine in the area is the Yuma Mine with recorded production of 8,600 tons @ 2.3% Cu, 0.3 oz Ag, and .03 oz Au/T. Recorded metal production from the entire Granite Wash Mountains includes several thousand units of tungsten and several hundred to one thousand tons of ore each from the Glory Hole, Dandy, Desert Queen and True Blue Mines, averaging .40 to .60 oz Au/T. During the copper boom of the 1960's and 1970's both Bear Creek and Tenneco reportedly examined the Yuma Copper Mine and may have drilled a hole or two in its vicinity. Oliver Kilroy has held a major land position in the area for almost 20 years, has carried out extensive geophysical surveys, and has drilled fifteen holes for copper mineralization with negative results. Exploration activity that presumably was directed toward gold mineralization during the 1980's has included dozing and trenching by Bill Baker at the True Blue Mine, and by Charles Willmore at the Pandora's Box and Dandy prospects in Secs 6 and 7, T5N, R14W. The Dona Kay prospect in Secs 12 and 13, T5N, R15W was drilled by Baroque Resources and Weaco in 1985 and five or six rotary holes were drilled on the major low-angle fault and associated veins at the Three Musketeers tungsten property in SW¼ of Sec 24, T7N, R15W. Most of the land in the area is Federal, administered by the BLM and old claim posts run rampant through the mountains and over the adjacent alluvial covered pediment. The only active mine in the District is the Yuma Mine where Donald Nelson is mining gem quality azurite and malachite. Individuals and small companies (?) that hold claims in the Northwestern Granite Wash Mountains include: Donald Nelson with claims in the vicinity of the Yuma Mine, Elmer Lewis with claims at the Yellow Breast, and Jack Darland, who staked the same area Nov. 14, 1988, O.B. Kilroy, Transverse Mines, and Inclination Mining Company.

The data presented in this report was obtained during reconnaissance-type geologic examinations in the winter and early spring of 1988/1989. Accompanying this report are a sketch map showing the distribution of mineralization throughout the area, a generalized geologic map and section; a map illustrating the distribution of alteration and mineralization in the favorable area of disrupted Paleozoic quartzite and carbonate rocks, as well as sample logs, and a sample index map. Pertinent geologic references include: Bancroft, H., 1911, Reconnaissance-of the Ore Deposits in Northern Yuma County, Arizona, USGS Bull 451; Ciancanelli, E.V., 1965, Structural Geology of the Western Edge of the Granite Wash Mountains, Yuma Co., Arizona, University of Arizona MS Thesis; Dale, V.B. 1959, Tungsten Deposits of Yuma, Maricopa, Pinal and Graham Counties, Arizona, USBM RI 5516; Harrer,



Drill Holes in the Western Granite Mountains
La Paz County, Arizona

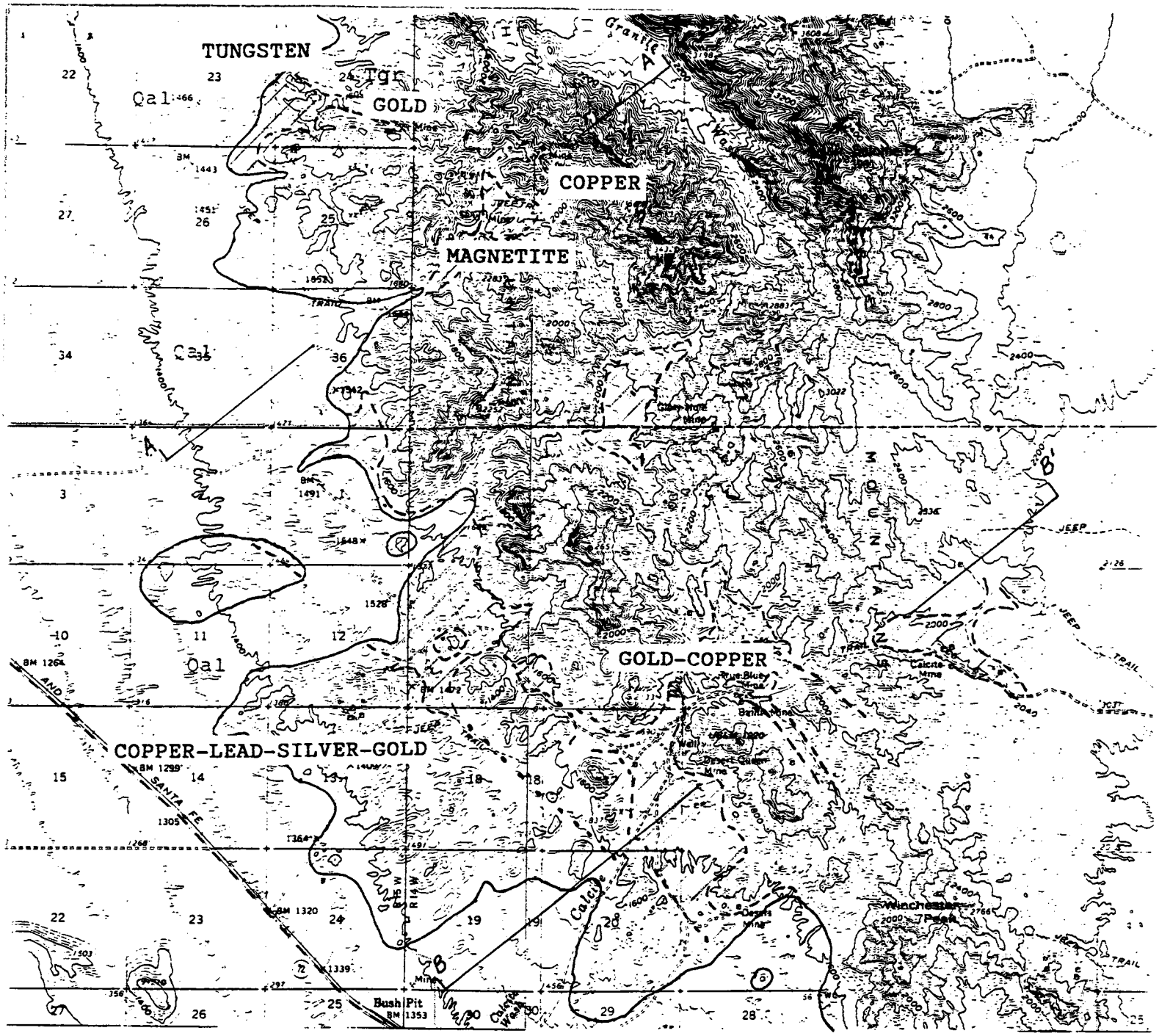
- ● NK — Holes drilled by Oliver B. Kilroy
- ● OBK — Kilroy Investments, Tucson, Arizona

o Holes drilled by other companies or individuals

C.M., 1964 Reconnaissance of Iron Resources in Arizona; USBM I.C. 8236; Keith, S.B.. 1978, Index of Mining Properties in Yuma County, Arizona, Ariz Bur of Geol and Mineral Tech, Bull 192; Laubach, S.E., Reynolds, S.J. and Spencer, J.E., 1987, Mesozoic Stratigraphy of the Granite Wash Mountains, West Central Arizona, the Granite Wash Mountains, West Central Arizona, AGS Digest Vol 18, pp 91-11; Reynolds and others, 1989, Geologic Map , Geologic Evolution, and Mineral Deposits of the Granite Wash Mountains, West-central Arizona; Ariz Bur Geol and Mineral Tech Open-File Report 89-4.

Geology and Mineralization

In the Northwestern Granite Wash Mountains a major low-angle shear zone is superimposed on varied rock types, including reactive carbonates and brittle, competent quartzites, and this favorable geologic setting has localized several different types of extensive and relatively intense mineralization, including copper, magnetite, tungsten, and gold-copper mineralization. The major low-angle shear zone is exposed at the margins of the area, but otherwise is concealed by structurally superimposed Paleozoic and Mesozoic rocks and by pediment gravels. The low-angle shear zone is the major structural feature in the area. Mineralization is closely associated with it, and may be related in time as well as space. The area offers a favorable exploration potential for gold replacement mineralization and for skarn copper mineralization similar to that at the Yuma Mine. Geologic and sample data and the exploration potential of the North-western Granite Wash Mountains is discussed in more detail in the following section and presented on the accompanying sample logs, maps and sections. Although not of economic interest, the magnetite deposit illustrates the intensity and possible extent of replacement mineralization localized in the favorable geologic setting resulting from the superimposition of the major low-angle shear zone on Paleozoic sedimentary rocks. Magnetite occurs as a subhorizontal 10 to 50 foot thick replacement zone exposed over a distance of more than 1500 feet on the west bank of Yuma Wash. Both the magnetite and nearby skarn copper mineralization are reported to contain some gold values, but the few samples of magnetite taken during this investigation contained only weakly anomalous amounts of gold. Harrer, in his description of the magnetite deposit, (USBM IC 8236 p. 136), stated that "underground exploration by King and Crawford had indicated a cupriferous pyrrhotite-magnetite deposit extimated to contain 50% Fe, .75 to 1.6% Cu and .04 oz Au/T." This underground work was probably in the area of skarn alteration at the north end of the mangetite zone, and these copper and gold values are comparable to values reported in production records



INDEX MAP

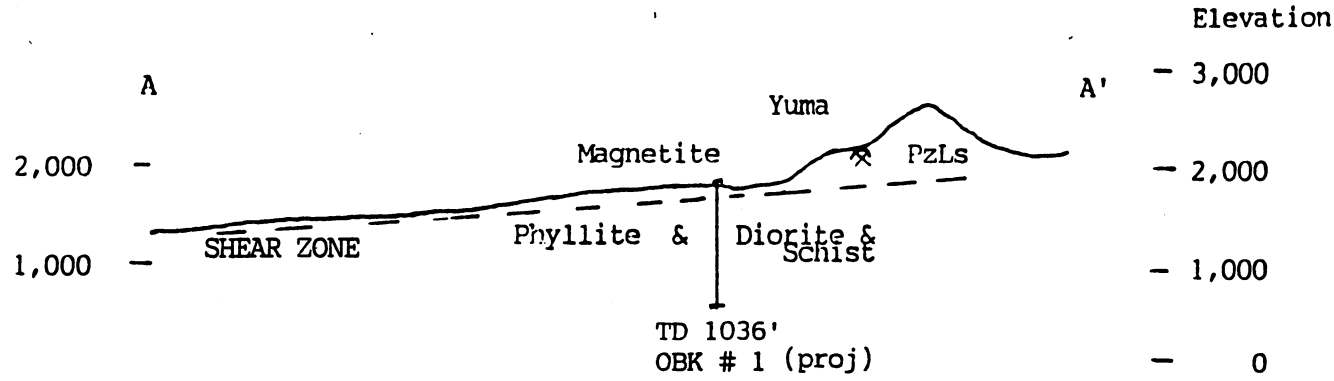
Showing the Distribution of Mineralization

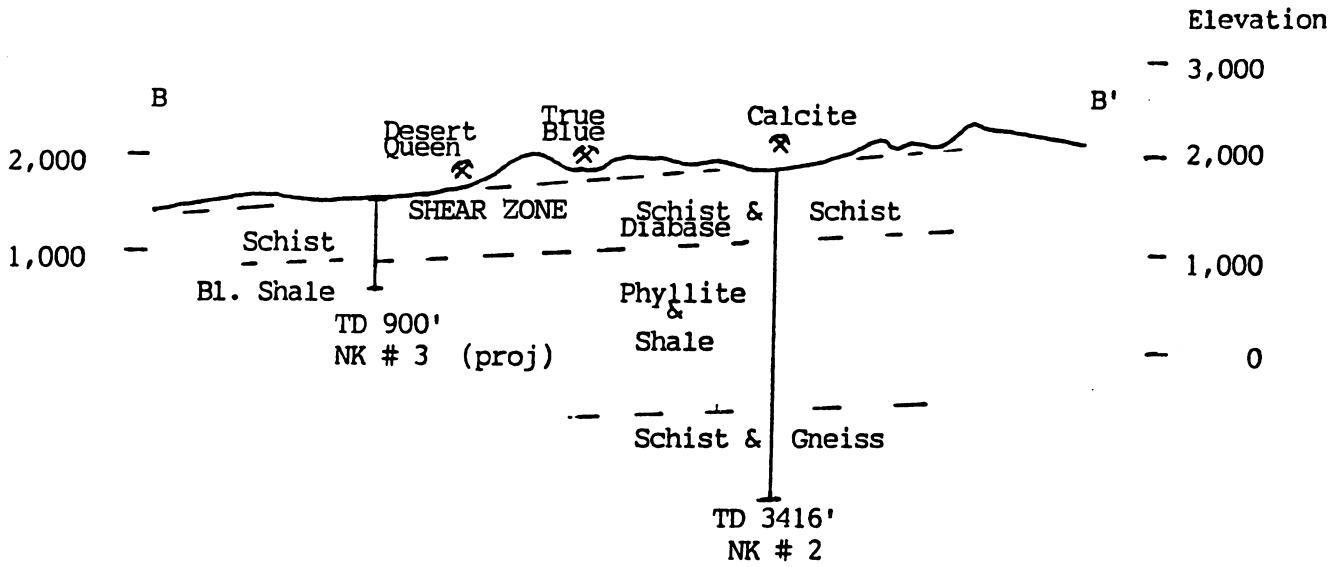
Granite Wash Mountains

La Paz County, Arizona

Qal	Quaternary Alluvium
Tgr	Tertiary Granite
///	Indicated Major Low-Angle Shear Zone

Northwestern Granite Wash Mountains Prospect





SCALE: Horizontal - 1inch = 1 mile
Vertical - 1 inch = 2,000 ft

GENERALIZED SECTIONS ILLUSTRATING

MAJOR LOW - ANGLE SHEAR ZONES AND MINERALIZATION

GRANITE WASH MOUNTAINS, LA PAZ COUNTY, ARIZONA

from the Yuma Mine. Garnet-epidote skarn that contains variable amounts of pyrite, chalcopyrite and magnetite occurs as a replacement of sheared Paleozoic carbonates at the Yuma Mine and at several other widely scattered mines and prospects. The ore at the Yuma Mine was 70 to 80 feet thick and recorded production was 8,600 tons @ 2.3% Cu, .03 oz Au/T. Private reports (ADMR Files) suggest potential reserves of 300,000 to 500,000 tons at 1.7% Cu and .03 oz Au/T, but there was little objective data to verify these figures.

The exploration potential of interest in the Northwestern Granite Wash Mountains is that of potential bulk-tonnage and higher-grade gold and gold-copper skarn and replacement mineralization localized where the the major low-angle shear zone is superimposed on competent, brittle, and reactive rocks. This geologic setting is concealed by overlying unmineralized rocks and pediment gravels and has not been thoroughly explored previously. Previous drilling in the area includes one or two possible drill holes (ADMR Files) in the Yuma Mine vicinity, two old holes drilled by O.B. Kilroy, and several old drill holes, and five or six relatively recent 1985(?) holes drilled in the vicinity of the Three Musketeers tungsten mine. Old roads west of the Yuma Mine and in the vicinity of the gold prospect at the SE corner of Section 24 were repaired in the late 1970's(?), but there was no evidence of drilling.

Non-vein gold mineralization occurs in a series of prospects near the faulted base of the quartzite in the SE¼ of Sec 24, T6N, R15W. The larger mine in the area was referred to by Don Nelson as the Yellow Breast, but no background data was available on the property. Gold occurs in pyrite in sheared, clay-altered chloritic siltstone (?) within thin-bedded, tightly-folded quartzite; with fine-grained pyrite and chalcopyrite in fractured zones in the thin-bedded quartzite, and is superimposed on variable epidote-garnet skarn and copper mineralization in and near the fault contact between the thin-bedded quartzite and underlying carbonate rocks. The gold mineralization does not exhibit any associated quartz or quartz veining; lead minerals were not noted in the area; the gold-silver ratio is relatively high, and gold values, although associated with copper, are independent of indicated copper values. Samples that illustrate this mineralization include:

Sample No.	ppm Au	ppm Ag	Description
4963-A	12.5	2.4	Dump sample - Yellow Breast pit: select from pile of pyritic, chloritic schist with 10-20% former pyrite.
4963-B	4.67	9.5	Dump sample - weakly pyritized quartzite; shaft above copper-skarn mineralization and approximately 750 ft. west of sample 63-A.

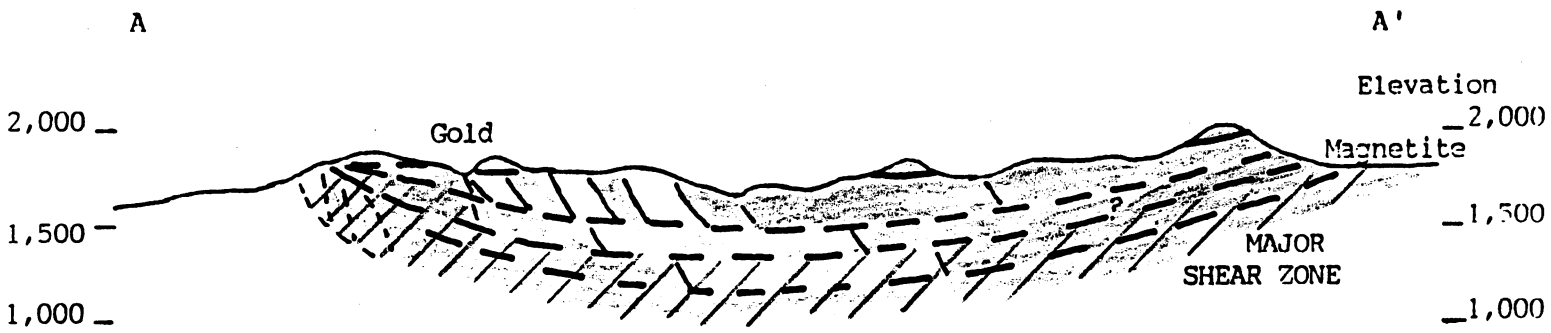
4989-I	12.7	24.7	Same shaft as 4963-B - near vert. 2 ft. wide zone of disseminated pyrite & chalcopyrite in quartzite adjacent to band of schistose siltstone

Copper-skarn mineralization at and near the faulted base of the thin-bedded quartzite also exhibits prominent gold values as indicated by the following samples. Throughout the area, the faulted contact of quartzite and carbonate rocks is covered by talus and was observed only in the pit sampled as Sample No. 4989-B.

Sample No.	ppm Au	ppm Ag	Description
4963	6.70	69.5	Dump - inclined shaft at contact of quartzite & carbonate. Gossan-like material derived from high sulfide garnet-chalcopyrite-magnetite-skarn replacement zone.
4989-A	.587	13.5	Same dump as above - general dump sample of low-sulfide garnet-epidote skarn.
4989-B	2.53	32.7	5 ft. sample of garnet with limonite and CuOx adjacent to sheared quartzite in pit 25 ft. east of shaft above.
4985-B	1.94	1.8	Dump of prospect pit 300 ft. northeast of 4989-B; quartzite with epidote, minor limonite, and minor copper oxides.

The quartzite unit hosting the mineralization is thin bedded, tightly folded and sheared; includes thin beds of marble; grades into a white argillaceous quartzite, and contains variable amounts of fine-grained disseminated pyrite. Some exposures suggest that the pyritization and argillic alteration occured prior to folding and metamorphism. However, shear zones in the same area exhibit intense pyritization, some tourmaline and abundant gypsum indicating that pyritization and mineralization also post-date the metamorphism. The Mesozoic (?) volcanic and volcaniclastic rocks in fault contact above and adjacent to the quartzite exhibit pyritic alteration that is most extensive at lower elevations and appears semi-continuous with the pyritic alteration associated with and above the magnetite deposit one mile to the southeast. Virtually every sample from the lower part of the thin-bedded quartzite and near the fault contact contained prominently anomalous gold values (.10 to over .30 ppm Au) and samples of the pyritized quartzite and Mesozoic volcanic and volcaniclastic rocks at lower elevations to the south and east were also commonly anomalous in gold (.05 to .10 ppm Au). Oliver Kilroy's drill hole OBK #1, located three thousand feet southeast of the magnetite replacement deposit, encountered a 20 foot interval at a depth of 85 feet that averaged approximately 1 ppm gold, and the intercept was described as shale and quartzite with moderate pyrite. The extent of this gold mineralization and its relationship to

Generalized Section
Illustrating Structural Relationships
And Mineralization
Northwestern Granite Wash Mountains
La Paz County, Arizona



Scale: 1 inch = 1,000 feet
H = V

- Granite
- Quartzite
- Volcanic & Volcaniclastic rocks
- Limestone & Carbonate rocks
- Schist & Gneiss
- MAGNETITE

that to the west is not known. The accompanying generalized sketch maps illustrate the distribution of both higher-grade and anomalous gold values in pyritic altered rock with respect to the faulted base of the quartzite and the pyritic alteration. The fault zone along the base of the quartzite is concealed by both talus and overlying fault slices of Mesozoic (?) volcanic and volcaniclastic rocks. It is believed to be a high-angle splay leading upward from the underlying major low-angle shear zone and the larger area of anomalous gold values in pyritic quartzite and volcaniclastic rocks may reflect extensive gold mineralization associated with the low-angle shear zone at depth.

The alluvial covered pediment in Secs 26, 27, 34, 35 and 36, T6N, R15W, has potential for similar mineralization concealed by alluvium and fault-bounded low-angle slices of unmineralized rocks. Low-angle faults were noted at several points at the edge of alluvial cover in the SE¼ of Sec 26 and the NE¼ of Sec 35. Limited exposures indicate that steeply-dipping quartzite occurs beneath the surface exposure of brecciated limestones and the major, low-angle shear zone can be projected into the area from exposures to the northeast and south. Samples taken from pyritic-altered, sheared, Mesozoic (?) volcaniclastic rocks at the edge of alluvial cover; from sheared quartzite and limestone, and from garnet-epidote skarn at the edge of cover in the SE¼ of Sec 26 exhibited weakly anomalous gold values. As illustrated by the tabulation below, the sample results are ambiguous but do indicate that there is a possibility of concealed gold mineralization in this area.

Sample No.	ppm Au	ppm Ag	Description
4976-A	.225	.2	Validation cut - 3 ft. sample of limestone Bx in low-angle fault - a few thin dk gray qtz vlts, minor limonite and CuOx stain.
4977-B	.038	.2	50 ft. sample of sheared pyritic schist; hematitic limonite after pyrite.
70556-D	.004	.2	(same location as 77-B) 10 ft. sample of highly pyritic schist.
4978-A	.018	0.5	Garnet-epidote skarn with minor limonite, exposed in bottom of wash.

Conclusions

The Northwestern Granite Wash Mountain Area of La Paz County, Arizona is submitted as a prospect with favorable exploration potential for replacement-type gold mineralization. The favorable exploration potential for gold deposits in this area is based on (1) the controlling influence of the major low-angle shear zone and its function as a favorable site for extensive mineralization where it is superimposed on brittle and reactive sedimentary rocks, and (2) the widespread occurrence of non-vein gold and gold-copper mineralization throughout the Granite Wash Mountains. The major exploration target envisioned is that of one or more elongate zones of gold mineralization localized in and adjacent to the major zone of low-angle shearing where it intersects quartzite, skarn, and/or reactive carbonate rocks. The limited geologic and geochemical data indicate that the zone of variable pyritic alteration extending from the gold prospects in the SE¼ of Sec 24, southeast to the magnetite replacement deposit should reflect the area most favorable for this type of mineralization. A secondary area potentially favorable for similar mineralization is the alluvial covered pediment in sections 26, 27, 34, 35 and 36, T6N, R15N where the major low-angle shear zone and units receptive to mineralization are concealed by structurally-displaced, unmineralized rocks and thin alluvial cover.

Respectfully Submitted,

By 

Corn & Ahern

SAMPLE LOGS

Northwestern Granite Wash Mountains

La Paz County, Arizona

PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4893	SE/NW Sec 30 T6N, R14W	W bank Wash below Yuma Mine	Qtz-rich magnetite replacement; some py & chpy in low ∠ shear zone.																	.011	<.2
4893-A	"	"	Sheared, schistose pyritized rhyolite or qtzite above mag. zone.																	.02	<.2
4893-B	"	Saddle - road on ridge W of wash	Select of qtz vlts in pyritic meta rhyolite.																	.011	<.2
4893-C	"	"	Weakly pyritized meta rhyolite.																	.031	<.2
4893-D	"	W bank wash SW end Mag zone	Poor repl. by magnetite - SW end of zone																	.018	<.2
4893-E	"	"	4-6" pyritic Bx adj to lamp. dike & above magnetite - N-S trend.																	.005	<.2
4894	Cent SW¼ Sec 25 T6N, R15W	Short Adit.	Pyritic & hematitic schist - Flt zone beneath limestone.																	.039	<.2
4894-A	SE/NE/25 T6N, R15W	W side of wash	2-15 ft zone of dissem py & chpy on low angle flt in limestone																	.090	3.4
4894-B	SW/NW/30 T6N, R15W	Adit Dump	Tactite - limey silts w/abt CuOx near mouth of adit.																	.388	1.6
4894-C	"	"	Tactite - limey shale-qtz-minor Cu from back of adit.																	.174	0.9
4895	Cent SW Sec 24 T6N, R15W	Adit & shaft - N side of Wash-on hill Tungsten Prosp.	Select sample white qtz-minor chl. & CO_3 from 20' thick shear zone at base of upper plate																	.061	0.6
4895-A	"	" Top of Hill	Red sheared carbonate lense in cut adj to lamp. dike.																	.001	<.2
4895-B	"	"	Weakly altd lamprophyre dike.																	.019	0.9

1. VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

PROSPECT Granite Wash Mts - Ellsworth Dist.

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W ppm	Acid Sol Ba ppm	Total Ba %	F ppm	Hg ppb	Cu ppm	Mo ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Au ppm	Ag ppm
4895-C	Cent SW¼ Sec 24 T6N, R15W	Cut, shaft, & adit on top of hill	3 ft sample of upper part of low angle crush & flt Bx. Dip E @ 20°																	.005	<.2
4895-D	"	Dump of Adit Top of Hill	Select sample of white qtz - carbonate vein.																	.059	3.0
4895-E	"	Cut NE of shaft.	Pyritized, potassic altd gneiss & schist.																	.003	0.2
4895-F	"	East DH on roads of shaft	Cuttings - hanging wall of low angle fault.																	.003	<.2
4895-G	"	West DH " 200 ft W of above	Cuttings Ft wall of flt.																	.007	<.2
4895-H	"	West of prospects S side wash	Sheared hematitic gneiss																	.001	<.2
4896	NW/SW/ 24 T6N, R15W	Alaskite Hill Dump adit on S side Hill	Pyritic altd Qtzite? Above gypsum.																	<.001	<.2
4896-A	"	"	Pyritic-alaskitic altd granite w/some qtz veins.																	.015	0.3
4896-B	"	W side Alaskite Hill	Select of qtz veins. Alaskite is 10-15% qtz veins.																	.104	1.0
4896-C	"	West end Hill prospects & adits on N slope Hill.	Select of qtz vein assoc. w/potassic alt.; S vein - NW trend, vert.																	.003	0.3
4896-D	"	"	Potassic or episyenite altd granite adj to vein.																	.005	0.9
4896-E	"	" " Dump N end of W prospect	Select of ½ in. crushed qtz.																	<.001	<.2
4896-F	SE/SE/24 T6N, R15W	E of old road ~~Dump — prospect~~	Select Cu-mineralization - tactite replacement in limestone.																	.64	24.6

1. VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

PROSPECT Granite Wash Mts. - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4896-G	NW/SW Sec 24 T6N, R15W	NW end of NW Hill W of prospects	Marble at edge of alluvial cover.																	<.001	<.2
4976	Cent SW ¼ Sec 26 T6N, R15W	Shaft - S bank wash NW cor Ls Hill	Select of chalced. qtz & black calcite vlts & 1 inch limonite-qtz vlt & adj limonitic rock. Vlts trend E-W & are in lower Plate w/ steep dipping beds.																	.102	<.2
4976-A	"	Prospect Cut "	3 ft sample of brecciated Ls - few dark gray thin qtz vlts; minor lim after py, minor MnOx & Cu stain.																	.225	<.2
4976-B	Cent SW¼ Sec 26 T6N, R15W	Val cut on S side wash - NW cor of Ls Hill.	3.5 ft. sample adj to face. Limonitic-clayey schistose limestone																	.020	<.2
4976-C	SW/SE Sec 26 T6N, R15W	Exposure in wash.	Brecciated Ls w/few thin qtz vlts & minor MnOx.																	<.001	0.4
4977	NE/NE Sec 35 T6N, R15W	SW edge Ls Hill	Brittle silic, siltst w/num white qtz vlts-lower part of flat sec & above pyritized schist.																	.003	0.2
4977-A	"	" Val cut	1 ft pyritic sheared qtzite or siltst. (base of Ls)																	.003	<.2
4977-B	"	Wash below Val cut	50 ft. sample of pyritic schist																	.038	<.2
4977-C	"	Wash ~ 300 ft. South of Ls Hill	50 ft. sample of pyritic schist.																	<.001	0.4
4977-D	"	"	10 ft sample of variably Bx chloritic meta SS(?) Numerous meta qtz vlts, hem lim & MnOx.																	<.001	<.2
4978	SW/NE Sec 26 T6N, R15W	S bank Wash. N of Game tank	Ls-Qtzite Bx w/MnOx																	.003	<.2
4978-A	"	Wash bottom	Poor exposure - garnet-epidote skarn w/minor limonite																	.018	0.5

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PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W ppm	Acid Sol Ba ppm	Total Ba %	F ppm	Hg ppb	Cu ppm	Mo ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Au ppm	Ag ppm
4978-B	SW/NE Sec 26 T6N, R15W	Val cut - top of Ls Hill NE of game tank	Silic. siltst cut by 1 inch sub. hor. white qtz vlts. minor lim. & Cu stain.																	.003	.2
4985	SE/SE Sec 24 T6N, R15W	Lower Dump Adit - Yellow Br. End of road	Select of unox. chlorite(?) Schist w/20% ? pyrite - no qtz.																	4.25	2.0
4985-A	"	Dump Prospect N slope valley below adit.	Limonitic qtzite, garnet & CuOx.																	.308	0.9
4985-B	"	" Dump adj. pit	Qtzitite w/epidote & CuOx.																	1.94	1.8
4985-C	"	Mouth of adit at end of road.	15 ft. sample of qtzite w/some limonite & a wkly altd basic sill.																	.032	<.2
4985-D	"	" E side of ore chute.	50 ft. sample of pasty white qtzite includes some dissem. pyrite.																	.066	<.2
4986	"	Upper Dump Yellow Br-Pit	Genl. sample-Dump Green schist that does not have pyrite or lim.reflecting pyrite.																	.107	<.2
4986-A	"	"	Select - schist w/mag & CuOx No pyrite																	.210	<.2
4986-B	"	"	Select - Cse chlorite schist w/qtz seams, pink feldspar? & no pyrite.																	.020	<.2
4986-C	"	"	Select - oxidized chloritic schist w/former pyrite - cse.																	7.25	1.3
4986-D	"	Qtzite Unit 20 ft. N & E of pit.	Vfg thin-bedded flat qtzite.																	.213	<.2
4986-E	"	Pit below & west of upper dump.	Sheared marble with minor dissem. py & chpy.																	.298	0.3
4986-F	"	Cut on ridge E of upper dump	Poorly exp. metaseds. - some qtz-pyritic--brown limonite.																	.028	1.5

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PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4986-G	SE/SE Sec 24 T6N, R15W	100-200 ft N of upper dump	Sheared qtzite - no limonite or sulfides ind. - but some thin qtz vlts.																	.126	.2
4987	East edge SE/SE/24 T6N, R15W	South slope of ridge	Gneissic metaseds. on N side of qtzite Wk hem. limonite, minor qtz-chlorite vlts.																	.006	<.2
4987-A	"	Ridge top val. pit.	Pyritic schist - abdt gyp & hematitic limonite.																	.022	0.8
4987-B	"	Caved adit on saddle of ridge.	2-10 ft. wide zone of sheared metaseds. & bright red hematitic limonite & gypsum - pyr. repl. Ls																	3.01	1.5
4988	SE/SE Sec 24 T6N, R15W	Old road cut west of dump.	Pyritic qtzite w/brown limonite.																	.060	0.5
4988-A	"	Road cut S of Yellow Br.	Sample over 60 ft. from end of road south - qtzite w/little or no limonite																	.012	<.2
4988-B	"	"	15 ft. of limonitic qtzite adj to Ls & 88-A.																	.176	0.2
4988-C	"	"	5 ft. of tourmaline & adj. pyritic schist.																	.048	<.2
4988-D	"	" val cut at bend in road	Limonitic schist w/fair former pyrite - area of abdt gypsum.																	.019	<.2
4988-E	"	Road cut.	140 ft. - qtzite w/red hematitic limonite & bright red stain.																	<.001	<.2
4989	"	N slope of Hill. 50' s of qtzite & 300' E qtzite shaft.	Chloritic meta volc(?) or metased. w/~ 1% dissem. py.																	.088	0.8
4989-A	"	Dump of tactite copper incline.	Genl.dump sample of garnet-epidote tactite.																	.587	13.5
4989-B	"	Snake pit E of incline.	5 ft. sample of garnet tactite w/OxCu mineralization.																	2.53	32.7

1. VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4989-C	SE/SE Sec 24 T6N, R15W	Cut near top ridge 200-300 ft. W of shaft.	5 ft. sample of thin-bedded qtzite with dissem.py - goethite adj to gyp & flt?																	.025	0.2
4989-D	"	Cut near ridge top 200-300 ft. W of shaft.	Gypsum-tourmaline & red hematitic limonite.																	.316	0.2
4989-E	"	Road cut on point 200 ft. E of shaft.	General thin bedded qtzite.																	.100	<.2
4989-F	"	"	1-2 ft. thick tightly folded thin-bedded qtzite w/ dissem. py - 1-2%?																	.163	<.2
4989-G	"	Knob near upper part qtzite-200 ft. above shaft.	Thin bedded qtzite w/dissem py & chpy.																	.084	0.5
4989-H	"	Dump at qtzite shaft.	Schist & qtzite w/little or no pyrite. Prob. 2 ft. from higher sulfide structure.																	.166	0.2
4989-I	"	"	2ft. near vert. zone of higher sulfides py & chpy.																	12.7	24.7
4990	NE/NE Sec 25 T6N, R15W	N bank wash E of old camp.	20 ft. sample of pyritic metased? or vol.(low angle flt & gyp) goethite																	.089	0.5
4990-A	NE/NE Sec 25 T6N, R15W	" across from camp.	Low angle zone of pyritized metased - gray wacke (?)																	.075	<.2
4990-B	"	" 500 ft. west of camp.	Pyritized metaseds - some met qtz vlts.																	.022	<.2
4990-C	"	Wash - south side south Qtzite.	100 ft sample of rhyor QF porph. w/dissem pyrite - no sericite.																	.051	<.2
4990-D	"	"	20 ft. of pyritic SS on S side of qtzite.																	.034	<.2
4990-E	"	Qtzite at wash NE bank	100 ft. of sheared qtzite Minor pyrite & met qtz vlts.																	.006	<.2

1 VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4990-F	NE/NE Sec 25 T6N, R15W	N bank wash N side qtzite	Pyritic-propylitic altd SS-wacke? 100 ft. zone																	.016	<.2
4990-G	"	" 100-150 ft. N of qtzite.	Pyritic altd metased Unit-thin qtz vlts - 50 ft. sample																	.042	<.2
4991	SW/SE Sec 24 T6N, R15W	Cliff exposure above wash. Upper thin bd & pasty white qtzite	E side cliff-thin bedded & pasty white qtzite w/dissem py - minor.																	.010	<.2
4991-A	"	"	Pasty white & blue green qtzite w/minor py - some thin, pink qtz, alunite vlts 25-30' above high pyrite zone.																	.047	<.2
4991-B	"	Base of cliff	20 ft. thick zone of high-pyrite qtzite																	.068	0.7
4991-C	"	" & southern part of exposure.	5 ft. of crenulated schist w/limonite & some tenorite below high-pyrite qtzite.																	.047	2.0
4991-D	"	"	35 ft. of pasty white, schistose qtzite w/minor limonite.																	.011	0.2
4991-E	SW/SE Sec 24 T6N, R15W	Prospect cuts N side wash.	Garnet-epidote tactite w/minor oxide Cu in Mbl.																	.411	1.7
4991-F	SE/SW Sec 24 T6N, R15W	2nd DH on road E of Tungsten Camp	Cuttings of marble & gneiss. 2nd hole to south on E side wash.																	.001	<.2

1. VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4999	SW/SW Sec 19 T6N, R14W	Top or ridge	Shattered, thin bedded qtzite adj to carbonate-sericite & minor limonite																	<.001	<.2
4999-A	Cent SE Sec 24 T6N, R15W	N slope - N ridge N of prospects	Epidote-garnet skarn w/qtz veinlets - adj to qtzite schist																	<.001	<.2
4999-B	NE/SW Sec 24 T6N, R15W	Wash - N of Three Musketeer shaft	Epidote-garnet skarn adj & parallel to qtzite schist																	.002	<.2
4999-C	"	"	Schistose metaqtzite - with metqtz vlts & minor limonite																	.003	<.2
4999-D	Cent SW¼ Sec 24 T6N, R15W	Road cut - E of & above Three Musketeer shaft & cut	Poorly developed epidote skarn Minor limonite																	<.001	<.2
5000	SE/SE Sec 24 T6N, R15W	S side of glch below road & prospect	Weakly altered - hematite - stained lamp? or basalt																	<.001	<.2
5000-A	"	"	10 ft. sample of gyp. shear w/metqtz & lim. adjacent to basalt																	.006	<.2
5000-B	"	Prospect pits N side gulch - East pit	3 ft sample - garnet-qtz-epidote in East pit. E-W dip 60° N																	.69	1.0
5000-C	"	East Pit	5 ft, sample of pasty white qtzite - below skarn - fair hematitic limonite & some OxCu																	.56	0.5
5000-D	"	Central Pit	6 ft of thin bedded qtzite on N side of skarn above; some limonite but no Cu																	.009	<.2
5000-E	"	West Pit	4 ft sample of thin bedded qtzite on S side of skarn. Some garnet & epidote, CuOx, +1% Cu																	.369	1.3
5000-F	"	Cut adj to gully SW of pits	6 ft sample of qtzite with thin epidote skarn, hematitic limonite & some CuOx																	.395	0.3

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PROSPECT Granite Wash Mts - Ellsworth District

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
70551	SE/SE Sec 24 T6N, R15W	Old dump in wash at pit	Shattered white qtzite																		
70551-A	"	Wash N & W of copper prosp. dump	Chloritic gneiss with thin pyritic altered zones																	.321	0.9
70551-B	"	Above west incline 300 ft W of shaft	Sheared carbonate-siderite with qtz vlts																	.018	<.2
70551-C	"	Val cut in wash	Tite folded rexllized yellow sandy carbonate w/sheared & chloritic metaseds. No limonite or CuOx																	.005	<.2
70551-D	"	1,000 ft below copper prospect	10 ft sample of pyritic gneissic metavolcanic																	.001	<.2
70552	NW/NE Sec 25 T6N, R15W	First prospect S of road	Pyritic qtzite-rhyolite adj to carbonate																	.001	<.2
70552-A	"	Wash at bend S of cliff	20 ft. sample of qtzite w/dissem limonite																	.032	0.9
70552-B	"	"	3 to 5 ft of qtzite w/dark limonite on S edge exposure																	.010	<.2
70552-C	"	Bluff south of wash at bend	Sheared qtzite w/minor limonite																	<.001	<.2
70552-D	SW/SE Sec 24 T6N, R15W	N bank of wash W expos of ser. schist & qtzite	Sericitic qtzite w/minor limonite																	<.001	<.2
70552-E	SE/SW Sec 24 T6N, R15W	Skarn exp. on N bank wash	10 ft sample of qtzite-epidote skarn E side exposure. Minor limonite & CuOx																	<.001	<.2
70552-F	"	"	20 ft sample of epidote-garnet skarn below prospect - minor limonite																	.135	<.2
																				.029	<.2

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SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
70553	SE Cor Sec 24 T6N, R15E	Gulch at Sec corner	Intensely pyritized schist in Flt Bx adj to basalt																	.020	<.2
70553-A	"	Dump prospect in gulch above Cor	6 inch-2 ft lens of pyritic schist - strataform-chloritic schist adj to carb Abt gyp & some CuOx																	1.71	4.3
70554	SE/SW Sec 24 T6N, R15E	Wash at road Xing E of DH	20 ft sample of py alt. schistose meta-volcanic-chlorite-variable wk pyritic alteration																	.003	<.2
70554-A	"	"	4 ft sample of pyritic alt. Basic metavolcanic																	.005	0.3
70554-B	"	"	Thin-bedded gneissic metased above meta volc.- wk pyritic alteration																	.001	<.2
70555	SW/SW Sec 24 T6N, R15E	Three Musketeer cut & shaft	Dump - select of white metamorphic qtz vn w/chlorite & some hematitic limonite																	.018	1.7
70555-A	SE/SE Sec 23 T6N, R15E	Tungsten Prospect dump	Pyritized schist adj to low angle white qtz vein																	.004	<.2
70555-B	NE/NE Sec 26 T6N, R15E	Hill west of Paleozoic	Bx gneissic qtzite and gneissic por. granite																	<.001	<.2
70555-C	NW/SW Sec 25 T6N, R15E	Dump shaft at W end hill - E of road	Shattered qtzite w/minor limonite after pyrite																	<.001	<.2
70555-D	"	"	2 ft NW trend near vert Bx zone in qtzite - abdt hem. limonite																	.026	<.2
70556	SW/SE Sec 26 T 6N, R15E	Isolated exposure pediment W of lime-stone hill	Black, sanded Ls Bx with some gypsum																	.001	<.2
70556-A	"	"	Limestone Bx at edge of cover																	.003	<.2

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SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W[3]	Acid Sol Ba[2]	Total Ba %[1]	F[2]	Hg[2]	Cu[3]	Mo[3]	Pb[3]	Zn[3]	As[3]	Sb[3]	Au[3]	Ag[3]
70556-B	SE/SE Sec 26 T6N, R15W	NW corner of lime-stone hill - wash	Variably Bx quartzite N of snake pit Some limonite																	.005	<.2
		"																			
70556-C	"	Validation cut	3 ft sample of clay alt. Schistose Ls w/variable limonite																	.020	<.2
70556-D	"	Wash at SW corner Ls hill	10 ft sample of pyritic schist-hem.lim-onite S of contact Bx																	.004	<.2
70556-E	"	"	Pyritic schist Bx w/met qtz vlts - 100 ft S of contact																	.004	<.2
70556-F	SW/NE Sec 26 T6N, R15W	N side wash NE of game tank	10 ft sample of low angle epidote skarn w/minor limonite																	.006	<.2
70556-G	"	" 50-100' E of above	10-15 ft sample of epidote skarn cut by num thin NW trend qtz veinlets																	.004	<.2
70557	SW/SW Sec 30 T6N, R14W	West bank Yuma Wash	Intense pyritic-argillic alt. of schistose metavolcanfc																	<.001	<.2
70557-A	"	" N of 57	Chloritic brecciated metavolc. in major low angle shear																	.015	<.2
70557-B	"	" Shaft dump	Sheared, pyritic altered metased																	.002	<.2
70558	SW/NW Sec 30 T6N, R14W	Dump of adit at road fork	Limonitic recemented qtzite																	.120	6.4
70558-A	"	Prospect above road to tactite Cu	Ft wall of shear dipping 30° S 3 ft zone qtz-lim & CuOx																	1.08	4.7
70558-B	"	"	Adjacent 10 ft of siderite alt carb; chlorite - some limonite & CuOx stain - below 3 ft sample 58-A																	<.001	<.2

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	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
70558-C	SW/NW Sec 30 T6N, R14W	Road cut below tactite Cu prospect	Chloritic altered vesicular basalt																	.004	<.2
70558-D	NW/NW Sec 30 T6N, R14W	S bank wash at road crossing	Pyritic-argillic altered schist																	.143	0.6
70558-E	"	Dump at val. pit	Pyritic schistose qtzite hematitic limonite stain																	.002	<.2
70558-F	NE/NW Sec 30 T6N, R14W	Dump of shaft on ridge	Pyritic altered metarhyolite abdt gyp - no ore on dump																	.007	<.2

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SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4963	SE/SE Sec 24 T6N, R15W	Copper prospect Tactite in bottom wash .	Dump sample - gossan-like-high sulfide - garnet-chpy & mag.																	6.70	69.5
4963-A	"	Adit & pit at end road - saddle	Dump - chloritic? schist w/high pyrite - no Cu																	12.5	2.4
4963-B	"	Shaft in qtzite above tatite in shaft at bottom of gulch	Dump sample of weakly pyritized qtzite																	4.67	9.5

1. VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

DRILL LOGS

OBK No. 1	
Drill Log	0 - 550
Assays	0 - 1036 TD
Petrographic Descriptions of Selected Intervals	540 - 1036
OBK No. 2	
Drill Log	0 - 235 TD

DEPTH	DRILLING METHOD AND COMMENTS	FORMATION & COLOR	ASSAYS - PPM				COMMENTS - MINERALIZATION
			Depth	Au	Ag	Cu	
0-15	Rotary & Hammer set surface	Metamorphosed Volcanic					Iron Oxides; traces Pyrite
15-60	Hammer	Same as above Color/Gray	20-25 30-35 45-50	.02 .02 <.02	1.5 1.5 1.2		Same as above
60-85	Hammer	Quartzite & Lime mixed Color/Gray to White	65-70 70-75 75-80 80-85	<.02 <.02 <.02 <.02	1.6 1.6 2.5 8.7		Traces of Pyrite
85-345	Hammer Went to Foam at 115'	Shale, Quartz, Biotite(?), Thin Quartzite zones. Green Mineral from 125-135 and 250-345. Color(Foam)/ Black	85-90 90-95 95-100 100-105 105-110 125-130 145-150 165-170 185-190 200-210 225-230 245-250 265-270 285-290 300-310 325-330	1.06 1.55 <.02 1.02 <.01 <.01 <.01 <.01 <.01 <.01 <.01 <.01 <.01 <.01 <.01 <.01	10.6 1.8 3.3 12.2 1.8 1.7 1.6 1.5 1.6 1.6 1.5 1.8 1.7 1.7 1.9 2.4		Moderate Pyrite 85-100? Traces of Pyrite 100-345?
345-550	Hammer Large cuttings increasing problem with foam, major problem at T. D.	Break at 345 Quartzite, Garnet (Brown & Black); Biotite? and/or Chlorite? with Associated Pyrite Green Mineral 500-550 Color (Foam)/ Brownish Red & Brownish Gray	No Assays				Traces to nil of Pyrite 345-540 At bottom, Quartzite fractured, with green and black mineral in fractures with Pyrite.

OH #1

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.
BOX 50106 — 1700 W. GRANT RD.,
TUCSON, ARIZONA 85703 — (602) 622-4836

Registered Assayers
OVER 50 YEARS

BRANCHES
Douglas
Hayden
Morenci
Inspiration
El Paso
St. Louis

IDENTIFICATION	Gold >.000K	Silver >.000K	Lead %	Copper %	Zinc %	Mo. %			
	ppm	ppm							
85 - 90	1.06	10.6							
105 - 110	< 0.01	1.8							
125 - 130	< 0.01	1.7							
145 - 150	< 0.01	1.6							
165 - 170	< 0.01	1.5							
180 - 190	< 0.01	1.6							
205 - 210	< 0.01	1.6							
225 - 230	< 0.01	1.5							
245 - 250	< 0.01	1.8							
265 - 270	< 0.01	1.7							
285 - 290	< 0.01	1.7							
305 - 310	< 0.01	1.9							
325 - 330	< 0.01	2.4							

Orig ltr

REGISTERED ASSAYER
CERTIFICATE NO.
5734
H. E.
RICHARD
Signed
Arizona U. S. A.

CC: Mr. Oliver B. Kilroy
ADD: 212 Tucson Title Building
TY: 45 West Pennington
D: Tucson, Arizona 85701
CITY:

REMARKS:

Trace analysis
(Pulverized & Dried)

Analysis Cert. By

Preparation $ 11.70
Analysis $ 48.75

ACC:	Date Spl. Received	Date Compl.		$
MR OLIVER B KILROY	10/6/72	10/11/72	TUC 346581	60.45

HAWLEY & HAWLEY

ASSAYERS AND CHEMISTS, INC.
BOX 50106 1700 W. GRANT RD.,
TUCSON, ARIZONA 85703 (602) 622-4836

Registered Assayers
OVER 50 YEARS

BRANCHES
Douglas
Hayden
Morenci
Inspiration
El Paso
St. Louis

IDENTIFICATION	Gold .XXX	Silver .XXX	Lead %	Copper .XX	Zinc %	Mo. %			
	ppm	ppm		ppm					
OBK # 2									
25 - 30	< 0.02	0.9	-	98					
145 - 150	< 0.02	1.0		137					
155 - 160	< 0.02	0.4		56					
180 - 185	< 0.02	1.1		14					
OBK # 1									
20 - 25	0.02	1.5							
30 - 35	0.02	1.5							
45 - 50	< 0.02	1.2							
65 - 70	< 0.02	1.6							
70 - 75	< 0.02	1.6							
75 - 80	< 0.02	2.5							
80 - 85	< 0.02	8.7							
90 - 95	1.55	1.8							
95 - 100	< 0.02	3.3							
100 - 105	1.02	12.2							

REGISTERED ASSAYER
CERTIFICATE NO.
8784
H. E.
RICHARD

CC: Mr. Oliver B. Kilroy
ADD: 212 Tucson Title Building
CITY: 45 West Pennington
ADD: Tucson, Arizona 85701
TY:

REMARKS:

Trace analysis
(Pulverized & dried only)

Analysis Cert. By

Preparation $ 12.60
Analysis $ 58.50

ACC:	Date Spl. Received	Date Compl.		$
MR OLIVER B KILROY	10/17/72	10/19/72	TUC 346597	71.10

H3

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007 PHONE 254-6181

For: Kilroy Enterprises
Tucson Title Bldg., Suite 212
45 West Pennington
Tucson, Arizona 85701

Date: August 21, 1974

Lab. No.: 7547

Sample: Ore

Marked: See Below

Received: 8-19-74

Submitted by: same

REPORT OF LABORATORY TESTS

GEOCHEMICAL REPORT

Sample No.	Gold ppm	Silver ppm	Copper ppm
553-569	lt* 0.1	1	110
569-579	"	lt* 1	110
578-588	"	"	65
588-597	"	"	80
597-611	"	"	50
611-623	"	"	170
623-632	"	"	50
632-641	"	"	40
641-654	"	"	35
654-662	"	"	75
662-670	"	"	50
670-680	"	"	70
680-689	"	1	70
689-699	"	lt* 1	70
699-708	"	"	60
708-718	"	"	70
718-727	"	"	100
727-737	"	"	120
749-750	--	--	130

OBL #1

lt* = less than

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

SKYLINE LABS, INC.
Hawley & Hawley, Assayers and Chemists Division
1700 W. Grant Rd., P.O. Box 50106, Tucson, Arizona 85703
(602) 622-4836

Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

CERTIFICATE OF ANALYSIS

ITEM NO.	SAMPLE IDENTIFICATION		Au ppm	Ag ppm	Cu ppm
1	OBK #1	553-569			155
2		569-579			140
3		579-588			65
4		588-597			95
5		597-611			55
6		611-623			250
7		623-632			50
8		632-641			45
9		641-654			45
10		654-662			100
11		662-670			50
12		670-680			75
13		680-689			80
14		689-699			145
15		699-708			60
16		708-718			85
17		718-727			150
18		727-737			190
19		749-750			140
20		750-755	<0.02	<0.2	70
21		755-765	<0.02	<0.2	65
22		765-775	<0.02	<0.2	70
23		775-785	<0.02	<0.2	60
24		785-793	<0.02	<0.2	70
25		793-803	<0.02	<0.2	70
26		803-813	<0.02	<0.2	70
27		813-834	<0.02	<0.2	40
28		834-832	<0.02	<0.2	35
29		832-840	<0.02	<0.2	20
30		840-850	<0.02	<0.2	40
31	OBK #1	850-861	<0.02	<0.2	5

TO:

Mr. O. B. Kilroy
212 Tucson Title Bldg., Suite 212
45 West Pennington
Tucson, Arizona 85701

REMARKS:

Trace analysis

CERTIFIED BY: William L. Lehmbeck

DATE REC'D:	DATE COMPL.:	JOB NUMBER:
8/26/74	8/29/74	741689

SKYLINE LABS, INC.
Hawley & Hawley, Assayers and Chemists Division
1700 W. Grant Rd., P.O. Box 50106, Tucson, Arizona 85703
(602) 622-4836

Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

CERTIFICATE OF ANALYSIS

ITEM NO.	SAMPLE IDENTIFICATION		Au ppm	Ag ppm	Cu ppm
1	OBK #1	862-872	<0.02	<0.2	5
2		872-889	<0.02	<0.2	5
3		889-900	<0.02	<0.2	5
4		900-922	<0.02	<0.2	5
5		922-932	<0.02	<0.2	60
6		932-945	<0.02	<0.2	40
7		945-955	<0.02	<0.2	5
8		955-964	<0.02	<0.2	5
9		964-974	<0.02	<0.2	5
10		974-983	<0.02	0.2	5
11		983-993	<0.02	<0.2	5
12		993-1003	<0.02	<0.2	5
13		1003-1013	<0.02	<0.2	5
14		1013-1023	<0.02	<0.2	5
15	OBK #1	1023-1036	<0.02	<0.2	5

TO:
Mr. O. B. Kilroy
212 Tucson Title Bldg
45 West Pennington
Tucson, Arizona 85701

REMARKS:
Trace analysis

CERTIFIED BY:

DATE RCD: 9/ /74
DATE COMPL.: 9/18/74
JOB NUMBER: 741310

DRILL HOLE IS ± 4400 FT. S. OF YUMA MINE

O.B.K. #1
N.W. SALOME PROSPECT

#1- 540-545

The specimen is a biotite phyllite, probably derived from a reworked volcanic originally. Crude sedimentary layering is obeyed by the foliation imposed by later mesozonal synkinematic metamorphism.

Only a few larger detrital grains of quartz and feldspars occur in laminae of very fine-grained quartz; these laminae tend to pinch and swell laterally. Clusters of biotite flakes occur in these laminae and tend to be strung out along the foliation and wrap around larger detrital grains. Seams of calcite parallel the foliation; the calcite is rather coarsely crystalline but tends to fill interstices among other grains. Small grains of pyrite occur sparingly in clusters of biotite flakes.

Minerals appear in the following estimated amounts: sericite 2%, quartz 49%, orthoclase 0.5%, plagioclase 12%, biotite 16%, calcite 20%, pyrite 0.5%, apatite tr., zircon tr..

#2- 540-545

The specimen is a sericite phyllite probably derived from a reworked volcanic. Detrital plagioclase (and less quartz) occur as augen in a well-foliated sericite-rich matrix. Epi-mesozonal metamorphism has been synkinematic.

Many augen are cracked or strained, some show rotation. The matrix is fine-grained granular quartz interlarded with sericite. Some biotite (retrogressively altered to prochlore) occurs with the sericite. The foliation of these minerals does not wrap around larger grains but ends abruptly at the grain boundary. Some laminae of coarser quartz occur and are relatively devoid of sericite; calcite is likely to fill interstices here.

Minerals are present in the following estimated amounts: quartz 34%, orthoclase 1%, plagioclase 19%, prochlore 5%, calcite 3%, sericite 38%, apatite tr., zircon tr..

OBK-1 614

The original rock was a siltstone, probably representing, for the most part, reworked dacitic material. Relicts of β quartz and plagioclase catacrysts may be seen but textural details have been obliterated by upper epizonal synkinematic metamorphism.

Larger strained quartz and plagioclase eyes survive in a foliated matrix of alternating sericite and quartz laminae. Quartz grains here are elongate parallel to the foliation and pennine flakes tend to be interspersed in the interstices. Sericite flakes occur in thick bunches showing crossfolding and other distortions. Tiny corroded epidote prisms occur sparingly in the sericite. Pyrite grains lie in quartz-rich laminae and may be partly mantled with biotite.

The white mineral you ask about is not clay but sericite.

Minerals appear in the following estimated amounts: quartz 39%, sericite 52%, pennine 3%, magnetite 1%, pyrite 0.5%, plagioclase 3%, zircon tr., apatite 0.5%, biotite 0.5%, tourmaline tr., epidote tr..

OBK-1 619

The original rock was probably a reworked dacite similar to 614'. Despite epi-mesozonal synkinematic metamorphism, catacrysts of plagioclase may be clearly observed, although broken or strained.

The rock is crudely foliated with thin discontinuous stringers of sericite layered with streams of quartz and plagioclase. These wrap around larger catacrysts. By contrast, one laminae consists of recrystallized silty material (quartz and plagioclase) set in large post-kinematic calcite crystalloblasts. One patch consisting of coarse, randomly oriented pennine and calcite may represent a basic xenolith. Pyrite euhedra scattered in quartz-rich laminae may be mantled with pennine.

In answer to your question, calcite is associated with the chlorite.

Mineral percentages are estimated as: quartz 18%, plagioclase 44%, pennine 12%, sericite 14%, calcite 10%, pyrite 0.5%, magnetite 0.5%, biotite tr., epidote tr., leucoxene tr..

OBK-1 660

The rock is a spessartite composed of numerous stubby prisms of basaltic hornblende and clusters of coarser subhedral augite. These are scattered in a matrix of randomly oriented plagioclase laths. Irregular magnetite grains are uniformly disseminated and are a common accessory. Quartz occurs sparingly as an accessory as rather large grains in the matrix as if by contamination. There are a few amygdules filled with quartz, pennine, calcite, and rare pyrite euhedra. Cognate xenoliths are uncommon. The rock has only experienced deuteric alteration.

As a result of this, plagioclase is mildly sericitized. Basaltic hornblende shows a slight tendency to alter to actinolite, then pennine and calcite.

In answer to your question, this rock is a younger dike, wholly unrelated to 662'.

An estimate of mineral percentages is: plagioclase 31%, augite 7%, basaltic hornblende 35%, actinolite 2%, pennine 10%, sericite 4%, calcite 4%, magnetite 5%, quartz 2%, apatite tr..

OBK-1 662

The rock is a phyllite derived from a sediment (possibly reworked dacitic material) by epizonal synkinematic metamorphism.

There are numerous large subangular grains of quartz and plagioclase. These are set in a well-laminated matrix of fine detrital quartz and plagioclase. Thick and thin, wispy anastamosing seams of well-foliated sericite parallel the banding and wrap around larger clasts. These are punctuated by calcite crystalloblasts that often are surrounded by dense matted patches of pennine. Where calcite growth is strong, orthoclase shows partial or complete replacement of adjacent plagioclase grains.

Mineral percentages are approximately as follows: quartz 33%, plagioclase 24%, sericite 25%, calcite 14%, magnetite 0.5%, pennine 2%, epidote tr., orthoclase 1%, apatite tr., leucoxene tr..

OBK-1 685

The original rock was probably a reworked dacitic volcanic. There are numerous catacrysts of β quartz and plagioclase set in a crudely layered matrix of granular quartz and minor plagioclase. The rock has experienced upper epizonal synkinematic metamorphism.

Some clasts are strained or broken; a few quartz eyes are surrounded by envelopes of granular quartz due to incipient crushing. Shreddy laminae of sericite wind though the fabric, giving a good foliation. Pennine flakes and interstitial calcite grains are interstitial to other minerals. Traces of pyrite were noted with calcite, pennine, and magnetite (this is also an affirmative answer to your question). These veinlets lie along synmetamorphic quartz veins or cut the fabric.

Minerals are present in the following estimated amounts: quartz 43%, plagioclase 18%, sericite 37%, pennine 6%, pyrite tr., calcite 4%, magnetite 0.5%, hisingerite 0.5%, leucoxene tr., apatite tr..

OBK-1 743

The rock is a quartz latite granophyre. Originally it carried sharply euhedral phenocrysts of β quartz, orthoclase, plagioclase, and biotite. These were scattered in a spherulitic matrix with small included orthoclase laths. Epizonal alteration has been late magmatic/deuteric.

Glass is devitrified to radial bursts of quartz stained with colloidal hematite (the pink mineral you questioned). Biotite is altered to sericite and crystalloblastic calcite with accessory anatase and montmorillonite. Plagioclase is only weakly sericitized.

Mineral percentages appear as follows: quartz 47%, orthoclase 24%, plagioclase 15%, magnetite tr., sericite 9%, anatase tr., montmorillonite tr., apatite tr., calcite 4%.

OBK-1 748

The specimen represents the contact between two rock types. The host (older) rock is a diorite with a diabasic texture. It consisted originally of randomly oriented plagioclase laths and interstitial basaltic hornblende. Accessory biotite and coarse granular magnetite cluster with the hornblende. Minor quartz and orthoclase occur as graphic intergrowths in the matrix. The rock has been moderately altered in the epizone. Although biotite is mostly fresh, basaltic hornblende is heavily altered to calcite and pennine. Plagioclase is moderately altered to calcite and sericite.

This diorite is cut by a quartz latite with scattered phenocrysts of β quartz and plagioclase in an originally glassy matrix. The contact is marked by a thin mylonitized zone of dioritic debris against a banded glassy phase of the quartz latite. This rock has been strongly silicified with sericite replacing both feldspars and biotite. Close to the diorite it is heavily impregnated with lacy calcite crystalloblasts. Rare disseminated pyrite was observed in both rock types.

OBK-1 783

The specimen is a diorite, a rock undoubtedly related to 748 and 660. It consists of randomly oriented plagioclase laths and abundant interstitial basaltic hornblende (mantled with uralite). Accessory ilmenite clusters with the hornblende. Interstitial areas are filled with coarse quartz and minor orthoclase. The rock has been deuterically altered.

Plagioclase cores are heavily occluded with spongy aggregates of anhedral epidote. Hornblende is only mildly altered to pennine and minor calcite. Ilmenite has altered to leucoxene. A fracture surface carries heulandite stained pink by colloidal hematite (the "shiny iron oxide" questioned).

An estimate of mineral percentages is: quartz 5%, orthoclase 1%, plagioclase 20%, amphiboles 32%, pennine 10%, epidote 26%, calcite 1%, leucoxene 3%, magnetite 1%, apatite 0.5%.

OBK-1 816

The rock is a diorite composed initially of randomly oriented laths of plagioclase with interstitial subhedra of augite. Small basaltic hornblende prisms may be attached to the augite. There are a few larger phenocrysts of augite and hornblende. Small interstitial patches of quartz and orthoclase occur sparingly. Cognate xenoliths are few and usually of coarser grain size than the host. The rock has been strongly altered in the epizone.

Plagioclase is only slightly clouded with sericite and epidote. The hornblende phenocrysts are wholly altered to fibrous epidote and pennine but matrix basaltic hornblende only partially so. Traces of pyrite are associated with this alteration. Late veins of heulandite and calcite cut the fabric.

Mineral percentages appear as follows: plagioclase 51%, quartz 2%, orthoclase 0.5%, epidote 3%, pennine 10%, augite 19%, basaltic hornblande 6%, magnetite 4%, calcite 2%, sphene 0.5%, heulandite 1%, sericite 0.5%.

OBK-1 855

The rock is a sericite schist derived from a pelitic sediment by mesozonal synkinematic metamorphism. It initially consisted of alternating silty and shaly laminae.

Silty laminae consist of granular quartz that is only slightly flattened on the plane of foliation. Slender flakes of sericite are crudely aligned along planes that weave through the quartz. Shaly laminae consist almost wholly of subparallel sericite scales and thin stringers of minute rutile grains. A few pale biotite books are scattered here but not aligned with the foliation. Veins of coarse strained quartz (of metamorphic age) roughly parallel the foliation and may enclose stringers of sericite and biotite.

Calcite occurs in interstices of the fabric throughout the specimen, and it seems aligned along ill-defined planes normal to the foliation.

OBK-1 925

The rock is a sericite schist much like 855 but in this sample only shaly laminae were noted. These consist exclusively of curved foliae of sericite plates, minor interstitial quartz, and strings of minute rutile beads parallel to the foliation. Coarse synmetamorphic quartz veins parallel the foliation and enclose small discontinuous laminae of sericite.

Very coarse calcite penetrates and replaces the fabric, invading quartz veins along grain boundaries. Where calcite is in contact with sericite there is apt to be an intervening patch of coarse clinochlore. Both the calcite and clinochlore show evidence of deformation. Small patches of hematite are scattered within the calcite.

OBK-1 954

The section has been cut from one of the quartz veins as described in the previous two samples. These veins may derive from very sandy laminae in the original sediment.

OBK-1 954 (con't.)

The rock consists almost exclusively of coarse strained quartz grains that are elongate in parallel and interlock along frilly boundaries. A few wispy foliae of sericite wind along grain boundaries and may be accompanied by granular quartz. Calcite occurs sparingly through the rock, filling interstitial voids.

An estimate of mineral percentages is: quartz 95%, sericite 3%, calcite 2%.

OBK-1 995

The original rock was a layered pelitic sediment. It has been synkinematically metamorphosed with some brecciation.

The rock consists essentially of slender, foliated scales of sericite. Pennine may be laminated with sericite or occur as small crystals oriented at variance with the foliation. The matrix consists of granular quartz showing very little flattening on the plane of foliation.

Fragments of this shist are isolated in patches of coarse strained "vein" quartz and separated by crushed zones within the schist. Coarse calcite invades grain boundaries in the quartz veins and occurs as crystalloblasts in the schist.

Minerals appear in the following estimated amounts: quartz 43%, sericite 20%, pennine 8%, calcite 29%, rutile tr., tourmaline tr..

OBK-1 974

The specimen is a sericite schist derived from a pelitic sediment by synkinematic metamorphism. It consists of sheaves of parallel sericite scales that define a plane of foliation that is severely crumpled. Small books of clinochlore may be interlayered with the sericite. The intervening laminae consist largely of granular quartz but wisps of sericite parallel to the foliation cut across grain boundaries in these areas. Thin hematite tablets lie along sericite cleavages or in rock cleavage planes cutting the foliation.

Veins and patches of coarse crystalloblastic calcite cut or replace the fabric.

Mineral percentages are estimated as: quartz 33%, calcite 38%, sericite 22%, clinochlore 5%, hematite 2%, epidote tr..

OBK-1 1023

The rock is a quartzite derived from a slightly argillaceous sandstone by synkinematic metamorphism.

The rock consists of ragged interlocking quartz grains that vary erratically in size. In some cases the size differences appear to owe to synmetamorphic crushing. Thin flakes of sericite may either lie along grain bounderies or be locked in the quartz. They are slightly concentrated in certain laminae that meander through the fabric, showing some degree of folding. Minute flakes of clinochlore occur in these laminae.

Small calcite crystalloblasts have formed in the interstices throughout the fabric.

Mineral percentages are approximately as follows: quartz 86%, calcite 5%, sericite 6%, clinochlore 2%, zircon tr., rutile tr., apatite tr., tourmaline tr..

OBK-1 1036

The specimen is a sericite schist derived from a shaly sandstone by epizonal synkinematic metamorphsim.

Wispy laminae of well foliated sericite are rather evenly spaced in a matrix of granular quartz. These laminae are curved and anastamosing. Small clinochlore flakes parallel the sericite. There also may be stringers of tiny subhedral epidote prisms in sericite-rich bands. Hematite tablets occur as an accessory, sometimes interlayered with sericite crystals.

Irregular patches or isolated crystalloblasts of calcite tend to be concentrated in, and replace, certain laminae.

Minerals are present in the following estimated amounts: quartz 52%, sericite 17%, calcite 24%, hematite 2%, clinochlore 3%, epidote 1%, zircon tr., tourmaline tr..

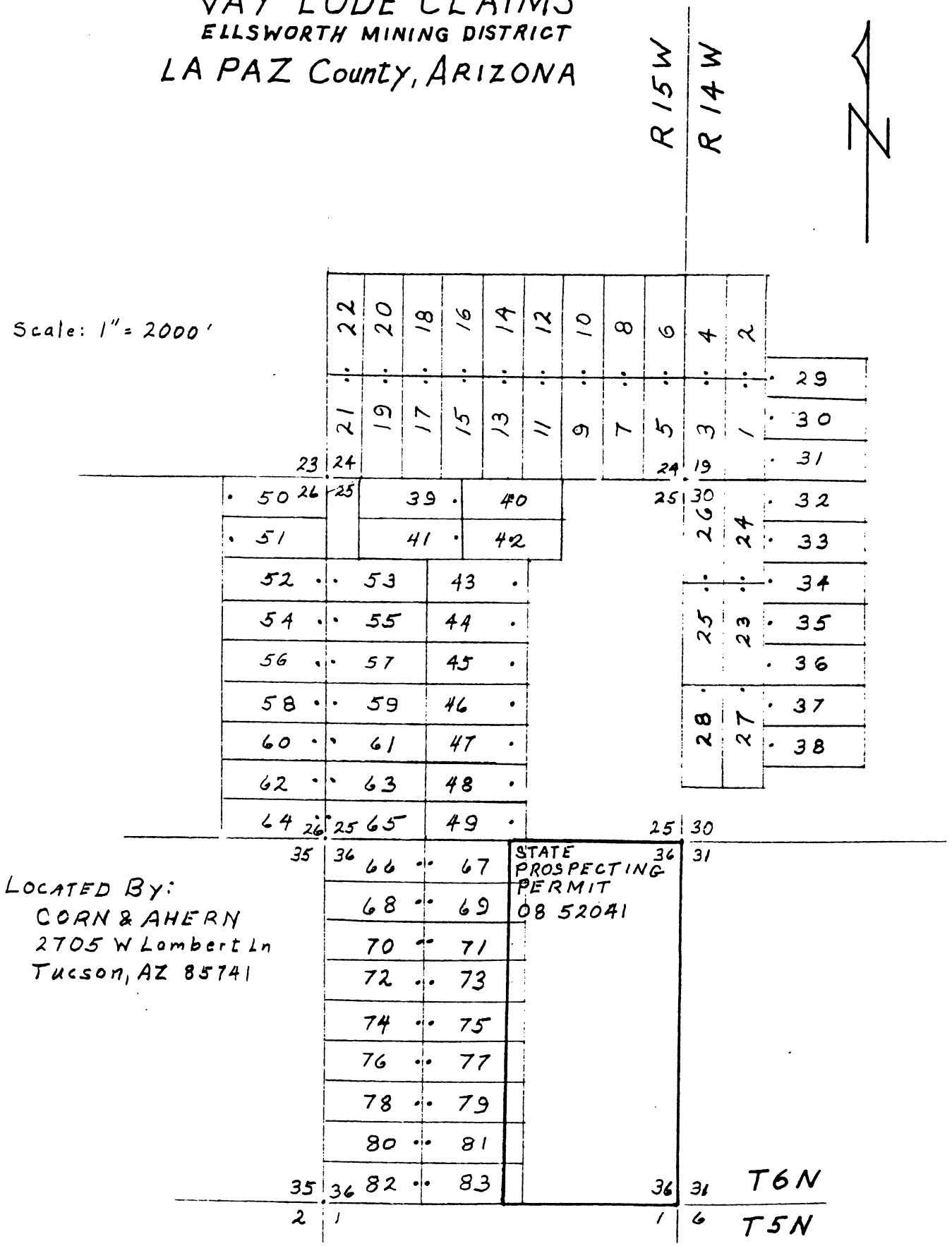
DEPTH	DRILLING METHOD AND COMMENTS	FORMATION & COLOR	ASSAYS - PPM				COMMENTS - MINERALIZATION
			Depth	Au	Ag	Cu	
0-10	Rotary - Soft Drilling	Intrusive? Red					Hematite staining and minor crystallization
15-45	Hammer - Soft Drilling	Intrusive? Red	25-30	<.02	.09	98	Same
45-165	Hammer - Soft Drilling	Lime, White Green Mineral at 155'.	145-150 155-160	<.02 <.02	1.0 .4	137 56	No mineralization
165-235	Hammer - Foam at 165'. Large cuttings a problem; shut-down at 235'.	Quartzite, Red to White	180-185	<.02	1.1	14	One small particle of Pyrite at 235'. some Hematite Crystals

OBK #2

VAY LODE CLAIMS

ELLSWORTH MINING DISTRICT

LA PAZ County, ARIZONA



LOCATED BY:
CORN & AHERN
2705 W Lombert Ln
Tucson, AZ 85741

VAY LODE CLAIM No. _____

CORN and AHERN
2705 W. Lambert Lane
TUCSON ARIZONA 85741
Ph. (602) 297 3858

June 3, 1992

Randy Moore
CAMBIOR
230 S. Rock Blvd Suite 23
Reno, Nevada 89502

RE: GRANITE WASH PROSPECT, LA PAZ COUNTY, ARIZONA

Dear Randy,

Enclosed are copies of the below listed documents concerning the prospect. Please feel free to copy what ever you may be interested in, and return the two enclosed reports to me.

Note that the data on the prospect was originally put together for presentation on a "Finders Fee" basis, and submitted to Kennecott. They examined the area on and off over a period of almost a year before deciding not to acquire a land position in the district. During that time, two of the claim holders in the district abandoned their claims, leaving enough open ground to make taking up a land position by claim location a viable approach. The district is now being presented to you on a "property submittal" basis.

If you have any questions, please don't hesitate to contact either Russ Corn or myself. Unfortunately, due to the sensitive nature of the finders fee arrangement, Kennecott was very emphatic in their arrangements with Joe Wilkins that he wasn't to discuss the project with anyone. We are working at getting that limitation lifted so that interested parties could discuss his work with Joe. Unfortunately his maps didn't copy as well as they might have, but he did a lot of quality, detailed mapping and sampling over the zone shown on his map.

Sincerely yours,

RICHARD AHERN

ENCLS:

Corn, R.M., 1991, Geologic summary of Northwestern Granite Wash Mountains Prospect, La Paz County, Arizona: Corn & Ahern submittal to Kennecott dated July 15, 1991, 7 p. w/maps, drill logs and assay reports.

Wilkins, J., 1992, Report on the Granite Wash Project, La Paz County, Arizona for Kennecott Corporation: pvt report released to Corn & Ahern, 7 p. w/maps, photos, and assay reports

Kennecott Exploration Company
1515 East 100 South
P.O. Box 11248
Salt Lake City, Utah 84147
(801) 322-7000
FAX (801) 583-3129

March 3, 1992

Kennecott

Corn & Ahern
8425 Desert Steppes Drive
Tucson, Arizona 85710

Gentlemen:

We have decided to proceed no further on your Granite Wash submittal. Although we recognize that a large target may exist on the property, we question the possible grade of such a target. I believe that we probably would pursue the area further if we did not have other, higher priority, properties.

Enclosed is a copy of a letter to Joe Wilkins discussing some of your concerns. As soon as all the data is assembled, I will forward you a copy. If you have any questions, please don't hesitate to contact me.

Sincerely,

Linus T. Keating
Geologist

encl.

Exploration Company
t 100 South
Box 11248
alt Lake City, Utah 84147
(801) 322-7000
FAX (801) 583-3129

March 3, 1992

Kennecott

Mr. Joe Wilkins
5450 N. Kennebec Lane
Tucson, Arizona 85704

Dear Joe:

Following Bill's review of the Granite Wash property, we have decided that, although the size of the prospect unquestionably meets our standards, we must pursue other properties which rank higher on our priority list. We will, therefore, not pursue Granite Wash further at this time.

I want to take a moment to review the business considerations which surround this property. Corn & Ahern submitted the Granite Wash area under a Finder's Fee Agreement with Kennecott. Since the property was a "third party submittal" (i.e. Corn & Ahern do not have a land position in the area), it is imperative that both ourselves and our contractors maintain strict confidentiality regarding the area over which we mapped and sampled. Any discussion of this area with an outsider could jeopardize Corn & Ahern's chances of finding another partner.

We appreciate the time and effort which you put into this area and look forward to working with you again in the future.

Sincerely,

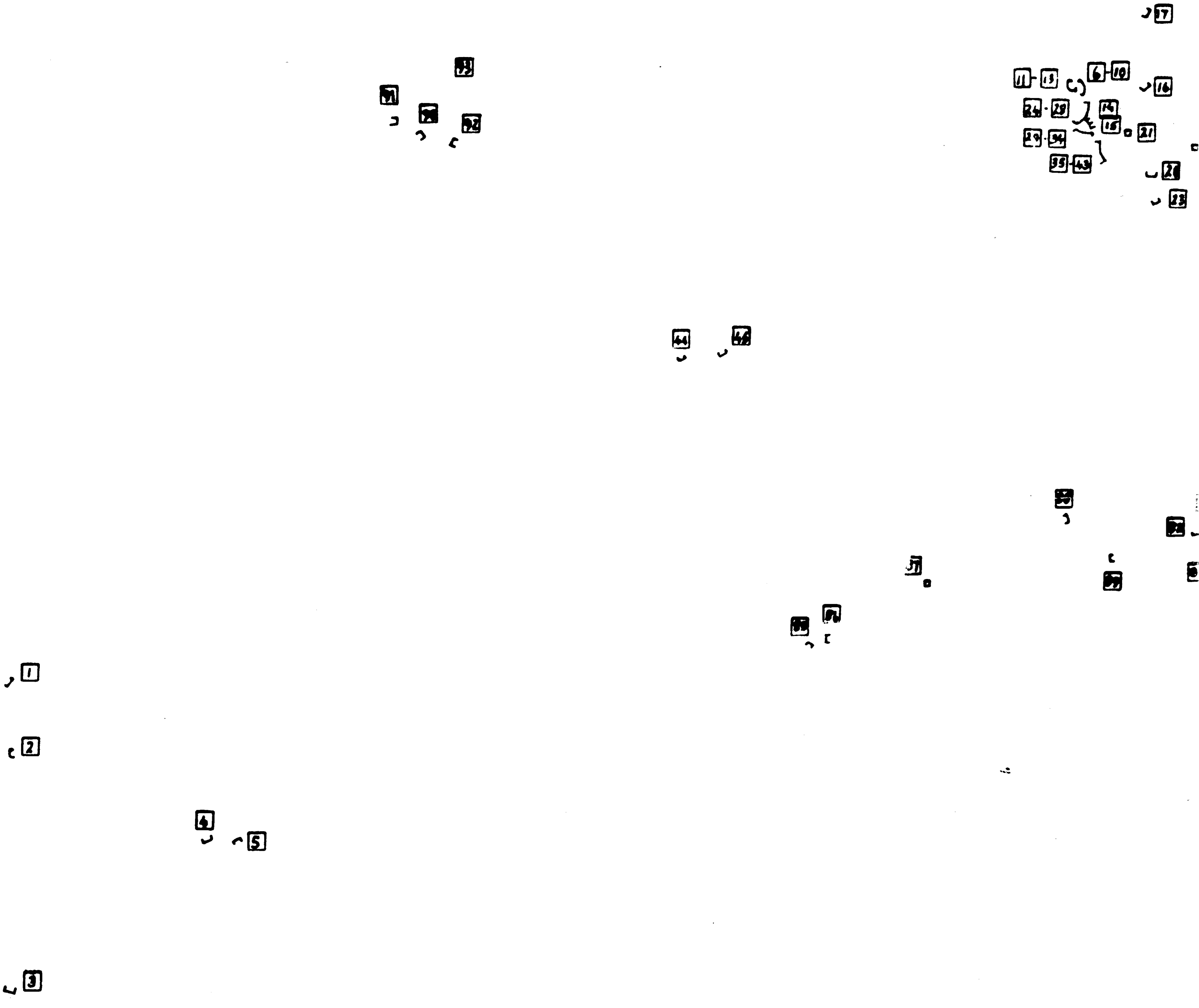
Linus T. Keating

c: Corn & Ahern

GEOCHEM OVERLAY

GRANITE WASH PROSPECT
LA PAZ COUNTY, ARIZONA

Joe Wilkins 11/91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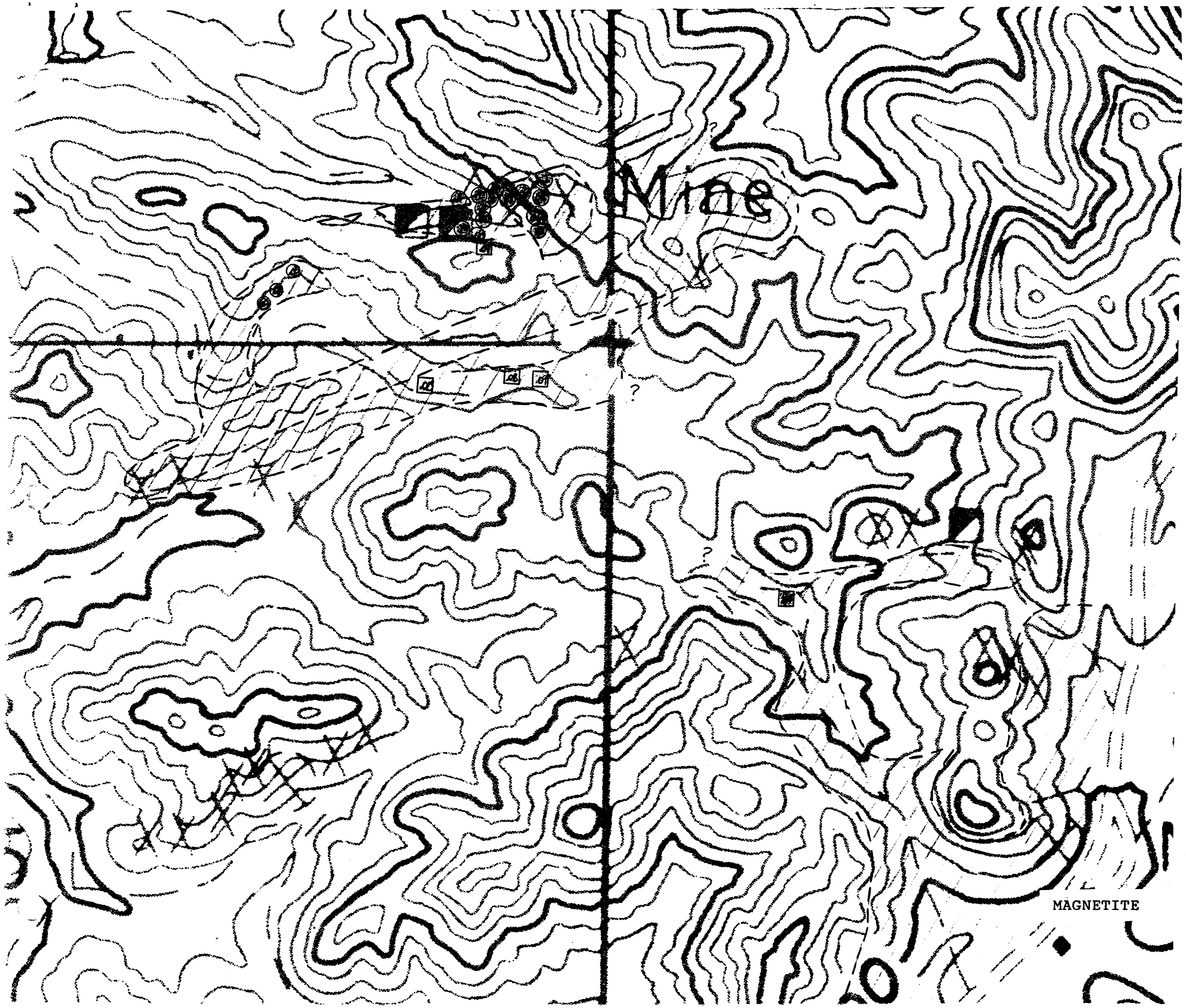


Distribution of Gold in Altered Rocks
Northwestern Granite Wash Mountains
La Paz County, Arizona

Quartzite

Pyritic Alteration

PPM Gold

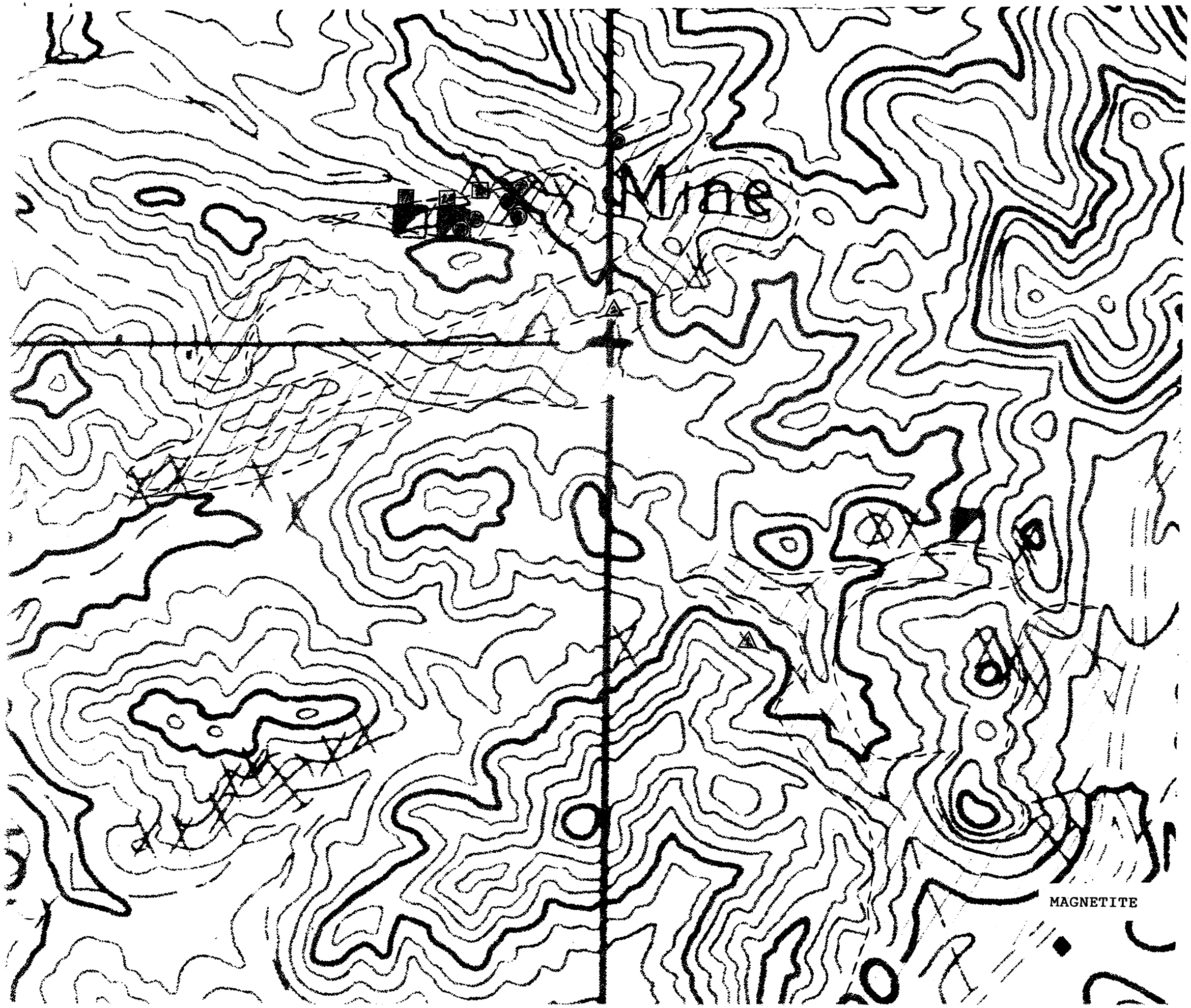
.05 - .10 .10 - .30 +.30

Type of Sample

○ quartzite

□ volcanic or volcaniclastic

Scale: 1 inch = 500 feet



Distribution of
Higher-Grade Gold Values
Northwestern Granite Wash Mountains
La Paz County, Arizona

Quartzite

Pyritic Alteration

PPM Gold

1 - 3 3 - 10 +10

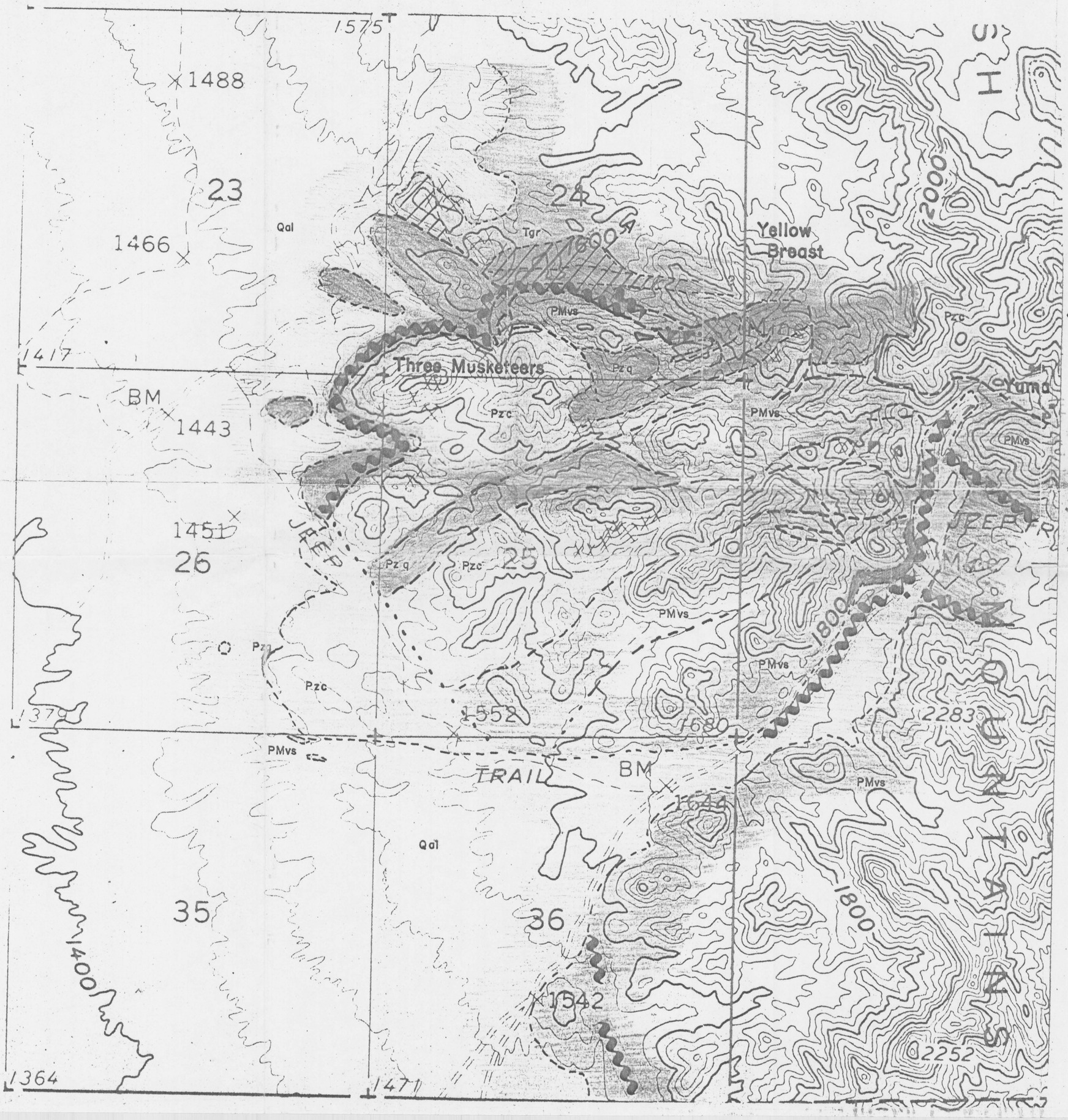
Type of Sample

○ quartzite

□ skarn

△ vein

Scale: 1 inch = 500 feet



EXPLANATION

- Qal — Quaternary alluvium
- Tgr — Tertiary granite

Weakly Metamorphosed Paleozoic and Mesozoic rocks

- PMvs — volcanic and volcaniclastic rocks
- Pzq — quartzite
- Pzc — carbonates

Major Shear Zone

Intensely Metamorphosed Paleozoic and Mesozoic rocks

- schist and gneiss
- quartzite
- skarn
- carbonates

Fault

Magnetite zone

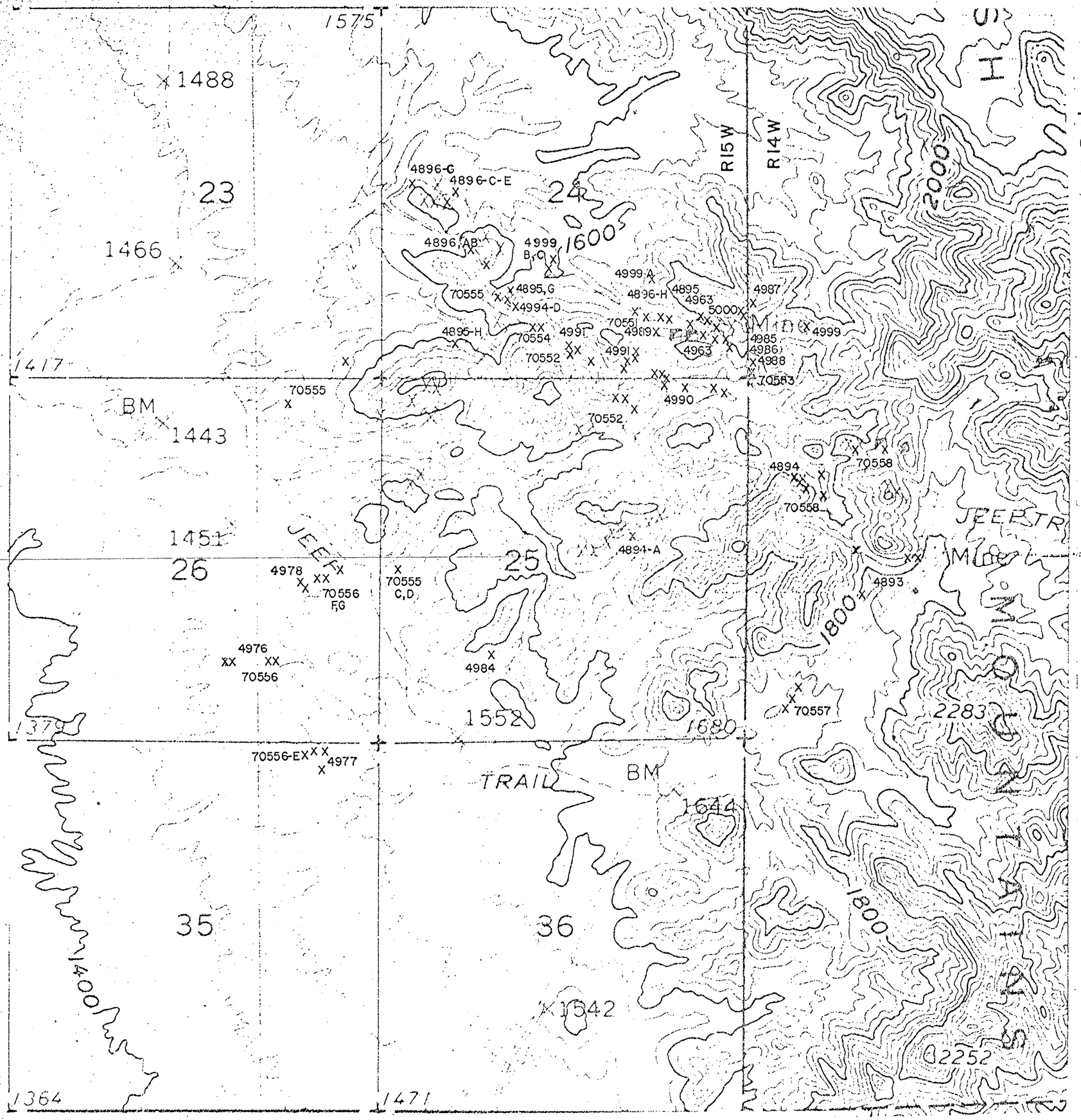
GENERALIZED GEOLOGIC MAP OF THE NORTHWESTERN GRANITEWASH MOUNTAINS

LA PAZ COUNTY, ARIZONA

R.M.CORN

JUNE 1989

Scale 1 inch= 1000 feet



SAMPLE INDEX MAP

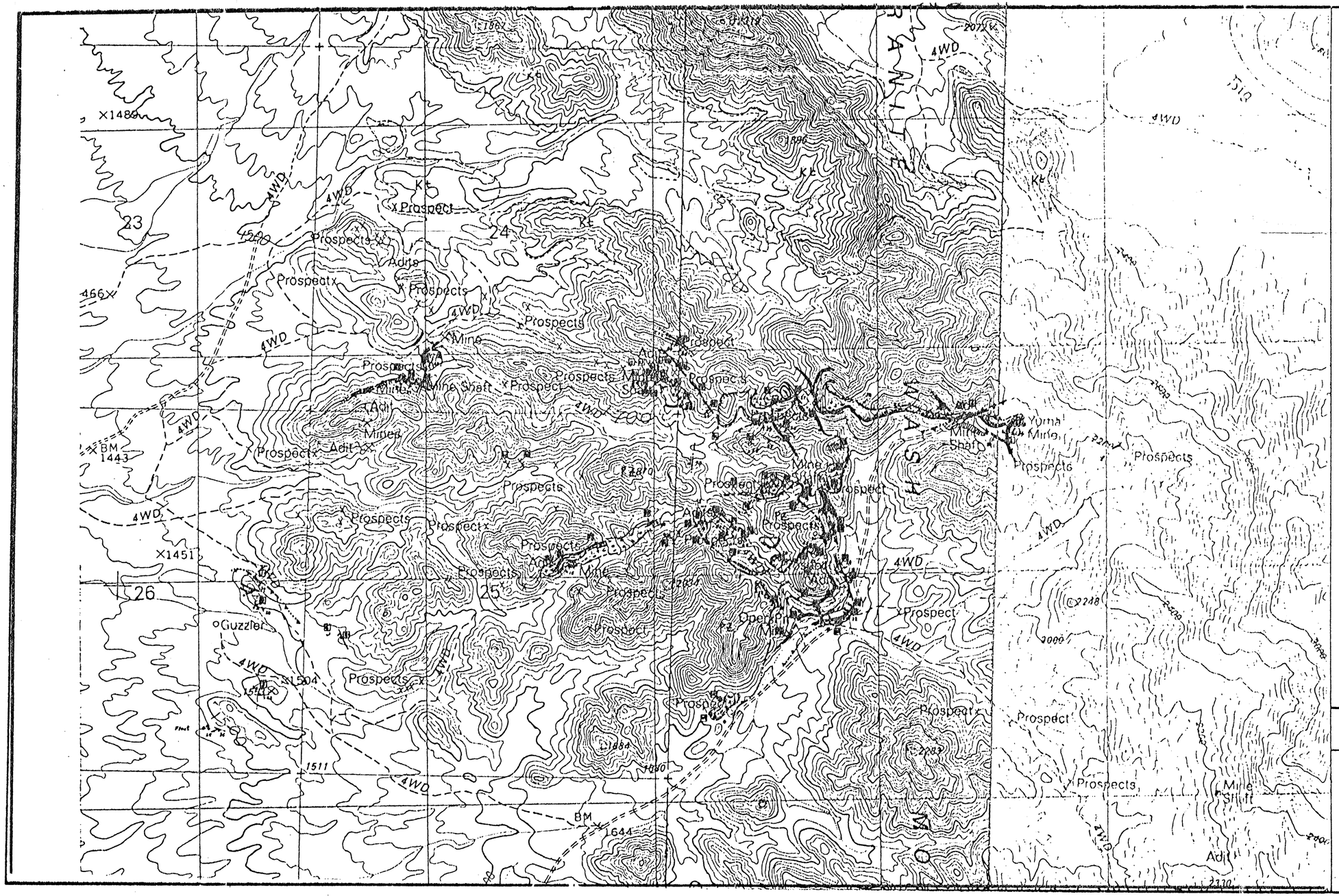
Northwestern Granite Wash Mountains

La Paz County, Arizona

X 4985 SAMPLE

SCALE: 1 inch equals 1000 feet

R.M. CORN JUNE 1989



EXPLANATION

LITHOLOGY

Qal	Alluvium, Talus
	Dikes, lampophyre, microdiorite
Tr	Dikes, rhyolite-latite
Kt	Tank Pass granite (85 ma)
MZc	Mesozoic clastic rocks
MZv	Mesozoic volcanic or volcanoclastic rocks
PZls	Paleozoic carbonates
PZc	Paleozoic clastics
PC	Precambrian crystalline rocks

ALTERATION

h	Hedenbergite
a	Actinolite-tremolite
w	Wollastonite
	Sericite, white micas
	Epidote
	Chlorite
	Jasparoid
	Serpentine
	Carbonate

MINERALIZATION

	Quartz, massive sulfide
	Magnetite
CuOx	Copper Oxides
t	Tourmaline

MISCELLANEOUS

Sample Number, Kennecott
Rock chip
Dump
Sample, Russ corn
Drill Hole

Scale 0 1000 2000 Feet

GEOLOGICAL MAP

GRANITE WASH PROSPECT
LA PAZ COUNTY, ARIZONA

Joe Wilkins 11/91