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SUPERIOR OIL

INTER-OFFICE CORRESPONDENCE

DATE October 22, 1981

TO Files

LOCATION Tucson

FROM John H. Ladd

LOCATION Tucson

SUBJECT RESULTS OF DRILLING AT BLAND HILL CLAIM BLOCK IN 1981

COPIES

Two diamond drill holes, BH-1 and BH-2, were dug on the Bland Hill claim block in March and April of 1981 (see Fig. 1). They are 1000' and 1451' deep, respectively, and are inclined 80°, N85°E. BH-1 was drilled in order to intersect at depth the felsic, mineralized horizon at the old Howard Copper mine. BH-2 was drilled in order to intersect at depth the zone of widespread pyrite mineralization located to the west of the mine.

BH-1 intersects both large amounts of felsic rock, including quartz porphyry and sheared, altered rhyolite, and considerable andesite, which was subjected to chlorite-epidote alteration. The rocks found in the core correspond well with those on the surface (see Fig. 2) and consist of an upper section of felsic rock, an underlying thick section of andesite, and a lower section of mostly felsic volcanics with some interbedded andesite. The results are consistent with the structural interpretation that the folds recognized on the surface are isoclinal with steeply dipping axial planes (see Fig. 2). The felsic rock is characterized by relatively strong, pervasive sericite alteration throughout the core. Mg-chlorite is mainly limited to the contact between quartz veins and the wall rock, and thus it is not a primary feature. Accessory tourmaline is also present. Sulfide mineralization is generally weak throughout the core, but is strongest within andesite just below the contact with felsic rock. The sulfides are mainly pyrite and occur both as stratiform stringers and as disseminated grains in stratiform, sulfide-rich layers. 21 sections of core containing >1% total sulfides were assayed for Cu, Pb, Zn, Au, Ag. Almost all samples contain anomalous amounts of Cu with lesser amounts of Zn. Two samples contain >.1% Cu and one of those samples, from a ten foot section, 654'-655', which corresponds with the mineralized felsic horizon at the surface, also contains .16 ppm Au and 68 ppm Ag.

BH-2 intersects mostly felsic rock, including recrystallized, sheared rhyolite, coarse grained quartz porphyry, and volcanic chert. These rocks are strongly silicified throughout the hole. There is, in addition, pervasive but weaker sericitization and tourmalinization. Mg-chlorite alteration is restricted to post-depositional structures. Most of the upper 700 feet contains 2 to 3% pyrite, both disseminated and stringer, and this zone of continuous pyritization corresponds well with a similar zone on the surface (see Fig. 3). Pyrite mineralization is much more discontinuous at greater depths. The hole also intersects minor andesitic rock, mostly below 1000 feet, and one post foliation, hornblende diorite dyke. By comparing the section seen on the surface and that seen in the core, it appears that no fold axis is crossed in the hole.

HENRY E. CORDES
MAYER, ARIZONA

The rock in the two cores is from the correct environment for massive sulfide mineralization. It is generally felsic in composition, it has been subjected to silica, sericite, and tourmaline alteration, and there are significant amounts of pyrite present. However, no massive mineralization was encountered in either hole. A downhole pulse EM survey was conducted in both to determine if massive sulfide mineralization is present nearby. The results, as shown in Figs. 4 and 5, were negative. The operator claims that this indicates that there is no massive sulfide mineralization within 500 feet of either hole.

Due to the negative results of the pulse EM survey, it is recommended that no further holes should be drilled in the vicinity.

John H. Ladd

JHL/cb

Attachments

HENRY E. CORDES
MAYER, ARIZONA
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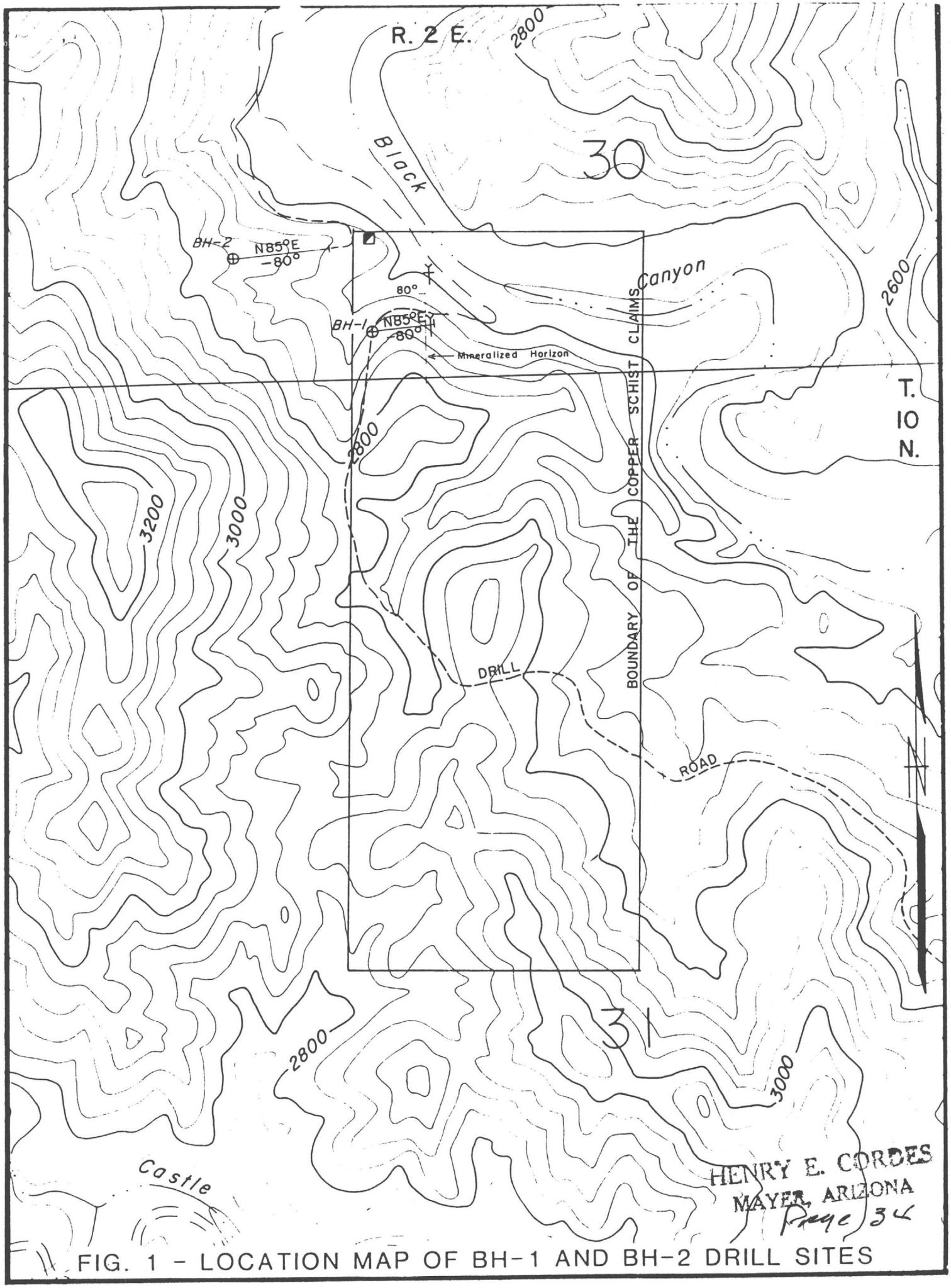


FIG. 1 - LOCATION MAP OF BH-1 AND BH-2 DRILL SITES

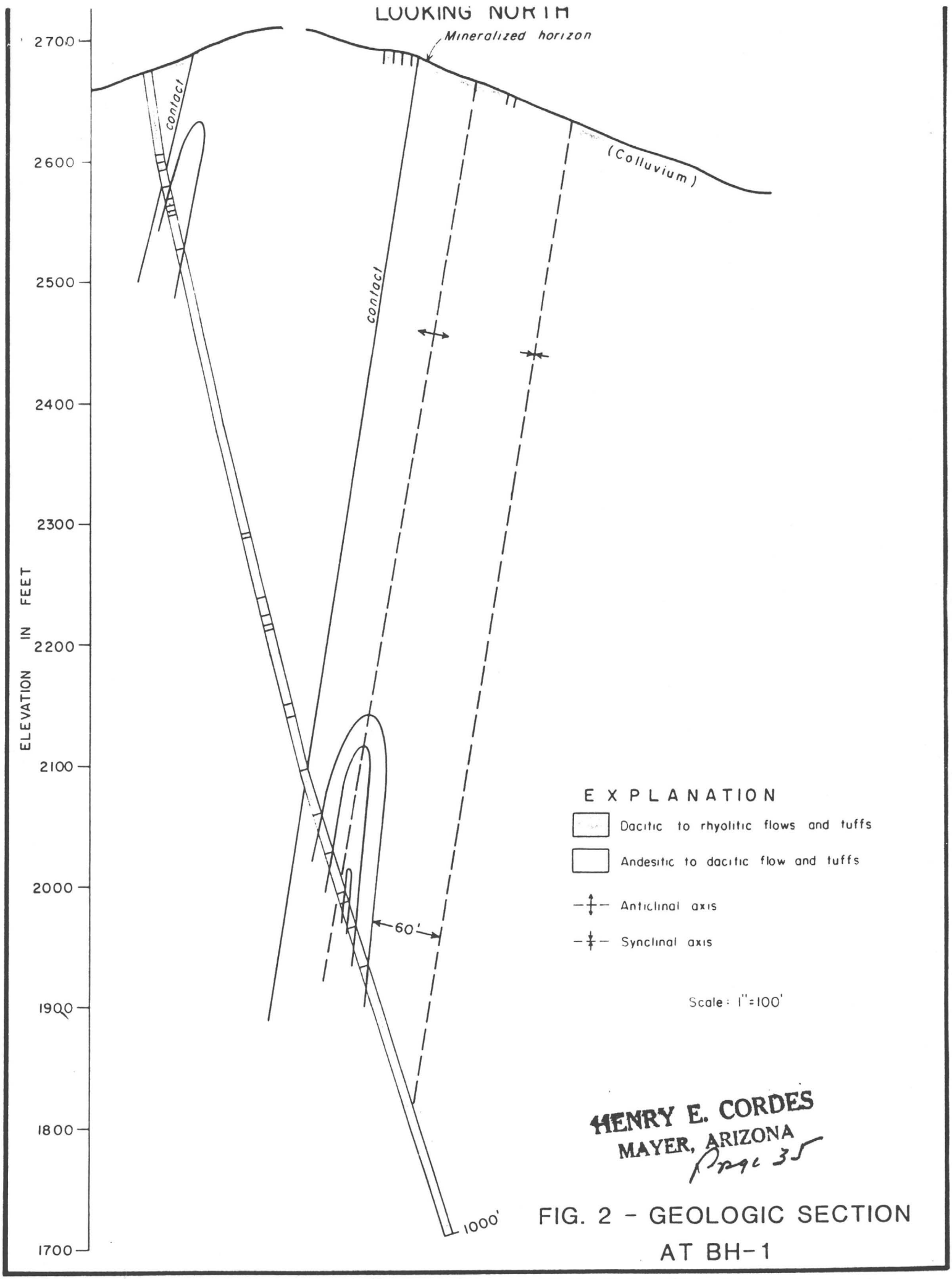
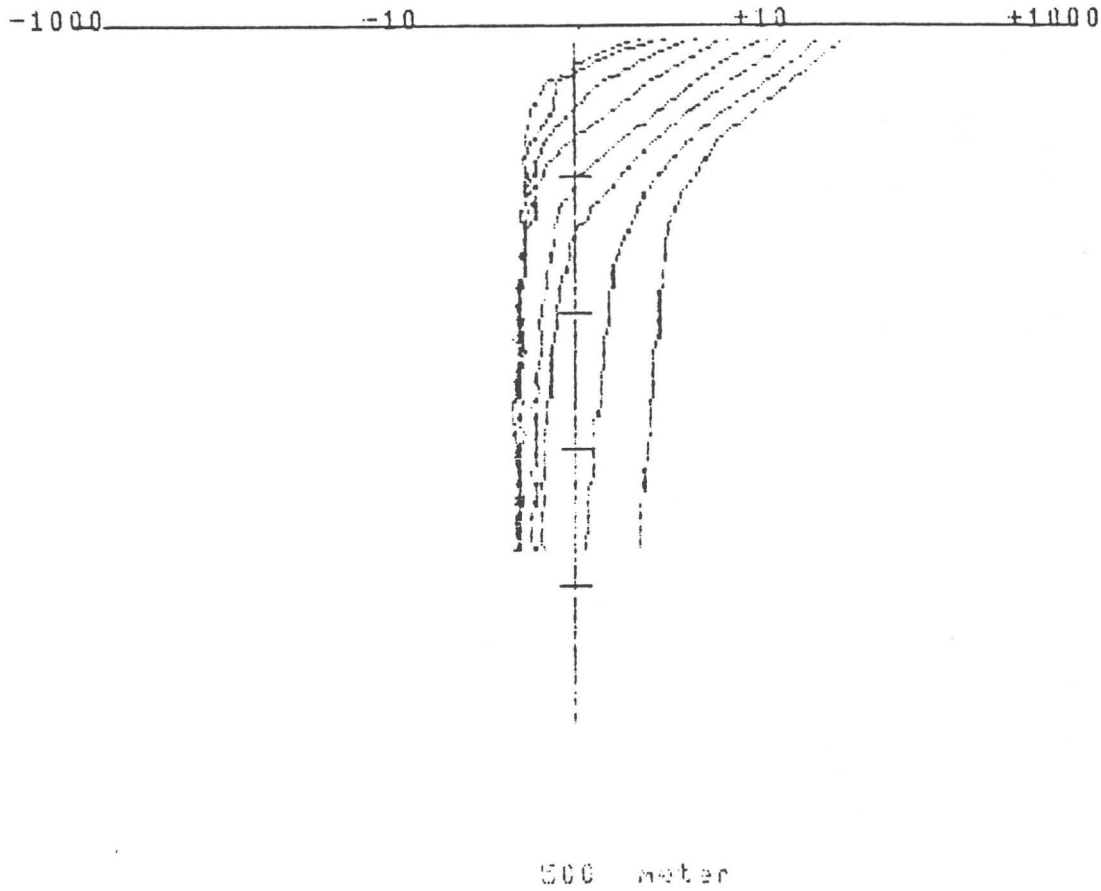


FIG. 2 - GEOLOGIC SECTION AT BH-1

CRONE GEOPHYSICS Ltd.

PEM - BOREHOLE



Area = ARIZONA
DDH# = BH-2 LOOP CENTER

FIGURE 5: Results of Pulse EM Survey for BH-2

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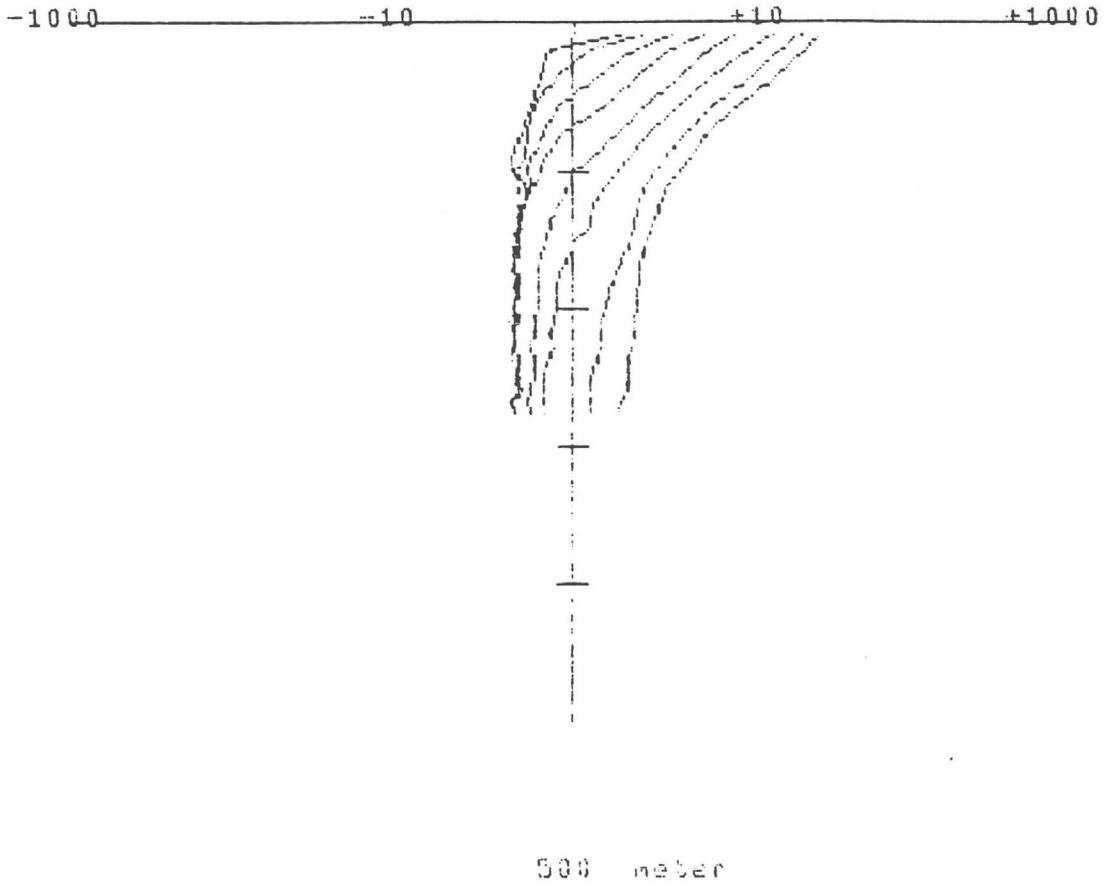
CRONE GEOPHYSICS Ltd.

PEM - BOREHOLE



Area = ARIZONA
DDH# = BH-1 LOOP CENTER

FIGURE 4: Results of Pulse EM Survey for BH-1

SKYLINE LABS, INC.
P.O. Box 50106 • 1700 West Grant Road
Tucson, Arizona 85703
(602) 622-4836

REPORT OF ANALYSIS

JOB NO. TFQ 131
May 2, 1981

Superior Oil Company
Attn: Mr. John Ladd
P.O. Box 12487
Tucson, Arizona 85732

Analysis of 18 Split Core Samples

ITEM	SAMPLE NO.	(FOOTAGE) BH-1	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm
1	34033	46-48	70.	<5.	30.	<.02	<.2
2	34034	67-68	5.	<5.	20.	<.02	<.2
3	34035	73-77	40.	<5.	75.	<.02	<.2
4	34036	79-84	30.	<5.	25.	<.02	<.2
5	34037	93-102	40.	<5.	50.	<.02	<.2
6	34038	102-106	40.	<5.	15.	<.02	<.2
7	34039	110-120	65.	<5.	45.	<.02	<.2
8	34040	149-151	10.	<5.	40.	<.02	<.2
9	34041	184-194	20.	<5.	50.	<.02	<.2
10	34042	194-200	25.	<5.	45.	<.02	<.2
11	34043	219-223	20.	<5.	50.	<.02	<.2
12	34044	317-327	100.	<5.	55.	<.02	<.2
13	34045	347-349	10.	<5.	35.	<.02	<.2
14	34046	380-386	45.	<5.	50.	<.02	<.2
15	34047	400-410	315.	<5.	115.	<.02	<.2
16	34048	443-445	2200.	<5.	95.	<.02	.2
17	34049	583-585	130.	<5.	45.	<.02	<.2
18	34050	635-636	95.	<5.	35.	<.02	<.2

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REPORT OF ANALYSIS

JOB NO. TFQ 134
April 29, 1981

Superior Oil Company
Attn: Mr. John Ladd
P.O. Box 12487
Tucson, Arizona 85732

Analysis of 3 Split Core Samples

ITEM	SAMPLE NO.	(FOOTAGE)	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm
		BH-1					
1	34051	654-664	1550.	<5.	120.	.16	1.8
2	34052	758-763	215.	<5.	135.	<.02	<.2
3	34053	985-987	<5.	<5.	40.	<.02	<.2

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Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

James A. Martin
Arizona Registered Assayer No. 11122

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REPORT OF ANALYSIS

JOB NO. TFQ 133
April 29, 1981

Superior Oil Company
Attn: Mr. J. Ladd
P.O. Box 12487
Tucson, Arizona 85732

Analysis of 5 Split Cores and 2 Rock Chip Samples

ITEM	SAMPLE NO.	(Footage)	Na %
		BH-1	
1	34054	439-441	.19
2	34055	500-502	.18
3	34056	601-603	.23
4	34057	700-702	.46
5	34058	800-802	.37
6	34059	Surface	.13
7	34060	Surface	.17

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REPORT OF ANALYSIS

JOB NO. TFQ 140
June 4, 1981

SUPERIOR OIL COMPANY
Attn: Mr. John Ladd
P.O. Box 12487
Tucson, Arizona 85732

Analysis of 49 Drill Cores and 2 Rock Chip Samples

ITEM	SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm
1	34061	185.	<5.	5.	<.02	<.2
2	34062	330.	<5.	30.	<.02	<.2
3	34063	380.	<5.	5.	<.02	<.2
4	34064	265.	<5.	20.	<.02	<.2
5	34065	85.	<5.	5.	<.02	<.2
6	34066	165.	<5.	20.	<.02	<.2
7	34067	255.	<5.	10.	<.02	.2
8	34068	195.	<5.	400.	<.02	<.2
9	34069	235.	<5.	20.	<.02	<.2
10	34070	265.	<5.	10.	<.02	<.2
11	34071	255.	<5.	5.	<.02	<.2
12	34072	210.	<5.	15.	<.02	<.2
14	34074	175.	<5.	20.	<.02	<.2
15	34075	180.	<5.	10.	<.02	<.2
16	34076	115.	<5.	10.	<.02	<.2
17	34077	225.	<5.	15.	<.02	<.2
18	34078	255.	<5.	15.	<.02	<.2
19	34079	200.	<5.	40.	<.02	<.2
20	34080	210.	<5.	15.	<.02	<.2
21	34081	135.	<5.	20.	<.02	<.2
22	34082	220.	<5.	15.	<.02	<.2
23	34083	150.	<5.	25.	<.02	<.2
24	34084	245.	<5.	25.	.06	<.2
25	34085	310.	<5.	20.	<.02	<.2
27	34087	230.	<5.	15.	<.02	<.2

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JOB NO. TFQ 140
June 4, 1981
PAGE 2

ITEM	SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm
28	34088	225.	<5.	10.	<.02	<.2
29	34089	210.	<5.	10.	<.02	<.2
30	34090	130.	<5.	15.	<.02	<.2
31	34091	265.	<5.	20.	<.02	<.2
32	34092	220.	<5.	20.	<.02	.2
33	34093	185.	<5.	25.	<.02	<.2
34	34094	165.	<5.	5.	<.02	<.2
35	34095	160.	<5.	20.	<.02	<.2
36	34096	165.	<5.	5.	<.02	<.2
37	34097	245.	<5.	5.	<.02	<.2
38	34098	580.	<5.	10.	<.02	<.2
40	34100	285.	<5.	10.	<.02	<.2
41	37015	205.	<5.	35.	<.02	<.2
42	37016	450.	<5.	95.	<.02	<.2
43	37017	175.	<5.	35.	<.02	<.2
44	37018	245.	<5.	15.	<.02	<.2
46	37020	160.	<5.	15.	<.02	<.2
47	37021	270.	<5.	20.	<.02	<.2
48	37022	185.	<5.	40.	<.02	<.2
49	37023	95.	<5.	10.	<.02	<.2

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JOB NO. TFQ 140
June 4, 1981
PAGE 3

ITEM	SAMPLE NO.	Na2O %
13	34073	1.10
26	34086	1.70
39	34099	.35
45	37019	.20
50	34277	.15
51	34278	3.70

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SKYLINE LABS, INC.
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(602) 622-4836

REPORT OF ANALYSIS

JOB NO. TFQ 144
June 13, 1981

SUPERIOR OIL COMPANY
Attn: Mr. J. Ladd
P.O. Box 13628
Tucson, Arizona 85732

Analysis of 12 Split Core Samples

ITEM	SAMPLE NO.	Cu ppm	Pb ppm	Zn ppm	Au ppm	Ag ppm
1	37024	85.	<5.	25.	<.02	<.2
2	37026	120.	<5.	40.	<.02	<.2
3	37027	180.	<5.	45.	<.02	<.2
4	37028	125.	<5.	60.	<.02	<.2
5	37029	265.	<5.	50.	<.02	<.2
6	37030	20.	<5.	55.	<.02	<.2
7	37031	130.	<5.	45.	<.02	<.2
8	37032	85.	<5.	30.	<.02	<.2
9	37033	105.	<5.	30.	<.02	<.2
10	37034	175.	<5.	25.	<.02	<.2
11	37036	165.	<5.	145.	<.02	<.2
12	37037	55.	<5.	65.	<.02	<.2

HENRY E. CORDES
MAYER, ARIZONA
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SUPERIOR OIL

INTER-OFFICE CORRESPONDENCE

DATE April 16, 1982

TO M.R. Wolfhard — LOCATION Tucson

FROM J.H. Ladd — LOCATION Tucson

SUBJECT RESULTS OF GOLD EXPLORATION SAMPLING PROGRAM, BLAND HILL CLAIM BLOCK

COPIES

SUMMARY

Continuous rock-chip grid sampling at the Howard Copper Mine workings has identified an area on the surface of 525 ft^2 containing >1 ppm Au and up to 0.75 oz-Au/ton. This gold anomaly is within an elongate, approximately stratiform zone of silicification and gold-arsenic enrichment in felsic volcanic rocks. Although of high grade, a gold deposit associated with this anomalous zone would probably be too small to be of interest to Superior, unless its area increases significantly at depth. A previously drilled hole, BH #1, which intersects the anomalous horizon 240 feet along strike and 600 feet down dip, shows little change with depth in grade or thickness of the anomalous zone. This may or may not be true down dip from the main anomalous zone. To test the anomaly, two angle holes, collared at the same location and inclined 60° and 80° to the east, should be drilled.

PURPOSE OF WORK

High gold values were obtained from the mapping of the Bland Hill claim block. One sample, from a chalcopyrite-pyrite lens located at the south end of the Howard Copper Mine workings, contained 1.805 oz-Au/ton. The other, containing 1.15 oz-Au/ton, was collected from an oxidized sulfide lens located on the north side of the Black Canyon River, approximately 3,500 feet in a N30°W direction from the main Howard Copper adit. (See overlay to the 1"-500' geologic map of the claim block).

An attempt was made to determine if the gold was restricted to the sulfide lenses or if these gold-bearing samples were part of larger mineralized systems. To do this, new sampling grids were laid out, centered on the two anomalous samples. The grid at the Howard Copper Mine was labeled BH-Au #1 and the grid to the northwest was labeled BH-Au #2. Continuous rock chip sampling over five foot intervals was done on seven lines, each eighty feet in length. Assay results showed that the gold anomaly at BH-Au #1 extended further to the north than the initial sampling grid, so ten additional lines of samples were collected. Samples were analyzed for gold, silver, arsenic and antimony.

The analyses were done by Bondar Clegg in Vancouver. Since the original anomalous samples were analyzed by Southwest Assayers and Chemists, new samples of these sulfide lenses were collected to compare results of the two lab

HENRY E. CORDES
MAYER, ARIZONA

Page 2

RESULTS OF SAMPLING PROGRAM

BH-Au #1

Results for the gold content of the BH-Au #1 samples are presented in Figure 1. Rocks containing 130 ppb gold or more occur in an elongate area which trends N70°W, roughly parallel to bedding, and which is approximately equivalent to the extent of the silicified, felsic horizon at the Howard Copper Mine. The correlation between silicification and gold content is not one to one, however. The samples containing more than 1 ppb Au are concentrated at the southern end of the felsic horizon and surround the location of the original 1.805 oz-Au/ton sample (See Fig. 1). Although silicification of the felsic horizon is just as intense at the northern end of the grid as it is at the southern end, there are only two samples containing more than 1 ppm gold at the northern end and the width of the >130 ppm gold anomalous area gradually narrows until it is nonexistent. There appears to be a good correlation between the area of >1 ppm gold and the area of rocks with a high iron oxide content, but there is no correlation between gold and copper oxide content.

The asymmetry of the gold anomaly (see Fig. 1) is probably the result of faulting or tight, isoclinal folding. The felsic horizon has been offset to the northeast at a point just south of line 0. Samples from this eastern horizon are weakly anomalous in gold (5, 10, 36, and 80 ppb).

A sample collected from the original anomalous sample site and analyzed by Bondar Clegg has a much lower gold content than the original sample analyzed by Southwest: 5090 ppb (0.150 oz-Au/ton) vs. 1.805 oz-Au/ton. The reason for the discrepancy is that the Bondar Clegg sample contained both sulfides and country rock over a one foot interval, but the original sample was of sulfides only. This explanation is supported by a reassay by Bondar Clegg of the Southwest pulp, which reported it as containing 3.990 oz-Au/ton.

The drill hole BH #1 intersects the gold-bearing felsic horizon to the north of the main anomaly (see Fig. 1) and at a depth of between 625 and 675 feet (see Fig. 2). At the time of the drilling program, only sections with 1% or more total sulfides were analyzed and the only section analyzed near the intersection with the silicified felsic horizon was the interval 654'-664'. This interval was reanalyzed by Bondar Clegg. In addition, the non-sulfide bearing core from 639'-734' was analyzed in hopes of finding a thicker anomalous zone.

The results are not encouraging. None of the non-sulfide bearing intervals contain any significant gold or silver (see Fig. 3). In addition, the reanalyzed interval contains much less precious metals, according to Bondar Clegg, than the initial sample analyzed by Skyline Labs (95 ppb gold and 1.0 ppm silver vs. 160 ppb gold and 68 ppm silver). However, a reanalysis of the Skyline pulp by Bondar Clegg indicates that the original sample contained more gold, although less silver (345 ppb gold and 1.5 ppm silver vs. 160 ppb gold and 68 ppm silver). These results suggest that the nugget effect is an important factor in these rocks and that the high silver result reported by Skyline is suspect.

HENRY E. CORDES
MAYER, ARIZONA

622-0127 130 PEMBERTON AVE., NORTH VANCOUVER B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

FROM: SUPERIOR OIL COMPANY

CERTIFICATE OF ANALYSIS

SUBMITTED BY:

DATE: 17-FEB-82 PROJECT: NONE GIVEN

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Au	.002 OPT			-100	PREPARED PULP	AS RECEIVED, NO SP

REPORT COPIES TO: BONDAR-CLEGG & CO.
SUPERIOR OIL

INVOICE TO: SUPERIOR OIL

~~DETECTION LIMITS FOR GOLD~~

~~20 gram sample: 5 PPB.~~

~~10 gram sample: 10 PPB.~~

~~1 gram sample: 100 PPB.~~

~~Sample Wt. 20 g. unless otherwise stated.~~

~~NOTE:~~

~~Check concentration/sample weight ratio for affective detection level.~~

HENRY E. CORDES
MAYER, ARIZONA

Page 4

622-0127 130 PEMBERTON AVE., NORTH VANCOUVER B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

CERTIFICATE OF ANALYSIS

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	NOTES
R 1-20N-10-15W		0.735	

HENRY E. CORDES
MAYER, ARIZONA
Page 5

130 PEMBERTON AVE. NORTH VANCOUVER B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667
T: 622-0482

CERTIFICATE OF ANALYSIS

M: SUPERIOR OIL COMPANY SUBMITTED BY: LADD

DATE: 30-MAR-82 PROJECT: NOT GIVEN

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
Au	.002 OPT			-100	PREPARED PULP	AS RECEIVED- NO SP

REPORT COPIES TO: SUPERIOR OIL

INVOICE TO: SUPERIOR OIL

~~DETECTION LIMITS FOR GOLD~~

~~20 gram sample: 5 ppb.~~

~~10 gram sample: 10 ppb.~~

~~1 gram sample: 100 ppb.~~

~~Sample Wt. 20 g, unless otherwise stated.~~

~~NOTE:~~

~~Check concentration/sample weight ratio~~

~~for effective detection level.~~

HENRY E. CORDES
MAYER, ARIZONA

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130 PEMBERTON AVE. NORTH VANCOUVER B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

XT: 622-0482 PROJECT: NONE GIVEN

CERTIFICATE OF ANALYSIS

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	NOTES
P 34459		1.110	
P 34469		3.990	

HENRY E. CORDES
MAYER, ARIZONA
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SUPERIOR OIL

INTER-OFFICE CORRESPONDENCE

DATE April 16, 1982

TO John Ladd

LOCATION Tucson

FROM Tom McCandless

LOCATION Tucson

SUBJECT PROBE SCAN OF SLIDES 37063-37066. CASTLE GROUP

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No gold was detected in the x-ray scan of polished thin sections from the Castle Group Claims. The minimum size of gold particles detectable on the probe is 0.8-1.0 microns. It is possible that any gold present may have been removed during preparation of the thin sections. All sulfides scanned were iron sulfides with trace amounts of arsenic.

Tom E. McCandless

Tom E. McCandless

TEM/cb

HENRY E. CORDES
MAYER, ARIZONA

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FORM 21 7/80 50M SUPERIOR

The area of highest silver content corresponds well with the area of highest gold content (compare Fig. 1 and 4). However, silver values are nowhere near as high as was expected from the earlier Skyline results. The highest concentration of silver in the surface samples is only 13 ppm, so it is doubtful that the silver would be economically significant, except as a by-product. The silver/gold ratio is approximately five to one.

Rocks enriched in gold are similarly enriched in arsenic (see Fig. 5). However, the arsenic anomaly is not significantly larger than the gold anomaly, so it is of little use in indicating a possible extension, at depth, of gold-rich zone. There is almost no antimony in these rocks and the gold-enriched rocks are slightly depleted in antimony as compared to the surrounding rocks (see Fig. 6). Thus, the antimony content is not useful information and future samples should not be analyzed for it.

BH-Au #2

No significant gold values were obtained from samples collected in this area (see Fig. 7). A sample of the oxidized sulfide, from which the earlier sample containing 1.15 oz-Au/ton was collected, contains 315 ppm gold. The discrepancy is due to the nugget effect because the reanalysis of the Southwest pulp by Bondar Clegg agrees well with the Southwest's original result (1.110 oz-Au/ton vs. 1.150 oz-Au/ton). Only one sample contains more than background silver. 10.2 oz/tonne ?

A weak, elongate arsenic anomaly, approximately parallel to bedding, extends across the sampling grid and includes the oxidized sulfide lens, a linear band of iron staining which extends north from it, and a lens of iron formation to the south (see Fig. 8). There is no pattern to the antimony values (see Fig. 9).

CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER WORK

BH-Au #1

This sampling program has located a zone of gold mineralization that is small but contains significant grades. Any deposit associated with it most likely would be too small for Superior. The area on the surface with rocks containing 1 ppm gold is only 525 ft^2, not including scattered samples containing 1 ppm gold to the north. This is equivalent to about 40 tons of rock per foot of depth. In addition, in the drill hole BH #1, drilled 240 feet along strike from the main anomaly, there is little or no change of grade or width of the mineralized zone with depth (2½ feet of 95 ppm Au vs. 5 feet of 50-160 ppm Au).

However, there is the potential that this is the surface expression of a larger mineralized system, and with an unusually high gold content (up to 0.75 Au-oz/ton), a large tonnage would not be needed to make the deposit economic. Thus, the anomaly seems worthy of testing at depth by diamond drilling. A drill site could be constructed on the access road to BH #1 with the new hole collared 240 feet south of the old hole. Two holes

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drilled perpendicular to the strike at angles of 60° to 80° to the east would intersect the mineralized horizon at approximately 350 feet and 650 feet respectively. Thus, about 1,200 feet of core would be required.

The 1982 budget will allow for only about $2,000 of additional expenditures this year, after land payments are made. Samples from the 3/4 oz-Au/ton zone are currently being prepared for SEM study to determine how the gold occurs in the rock. This study and miscellaneous other charges should use up most of the remaining money as well as satisfy 1982 assessment work requirements. Thus, the drilling should be planned for the spring of 1983.

BH-Au #2

The gold mineralization here is very weak and restricted. There is little or no potential for any significant mineralization at depth. No further work is justified in this area.

John H. Ladd

JHL/cb

Attachments

JOHNNY E. COLLINS
NOTARY PUBLIC

FOOTAGE INTERVAL	LAB	Au (ppb)	Ag (ppb)
639-644	Bondar Clegg	ND	0.2
644-649	Bondar Clegg	5	0.2
649-654	Bondar Clegg	10	0.2
654-664	Skyline	160	68
654-664	Bondar Clegg	95	1.0
	Bondar Clegg on Skyline Pulp	345	1.5
664-669	Bondar Clegg	ND	0.2
669-674	Bondar Clegg	ND	0.2
674-679	Bondar Clegg	ND	0.2
679-684	Bondar Clegg	ND	0.2
684-689	Bondar Clegg	ND	0.2
689-694	Bondar Clegg	ND	0.2
694-699	Bondar Clegg	ND	0.2
699-704	Bondar Clegg	ND	0.2
704-709	Bondar Clegg	ND	0.2
709-714	Bondar Clegg	ND	0.2
714-719	Bondar Clegg	10	0.2
719-724	Bondar Clegg	15	0.2
724-729	Bondar Clegg	ND	0.2
729-734	Bondar Clegg	ND	0.2

Fig. 3: Results of precious metals analysis for DDH-BH #1

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SKYLINE LABS, INC.
P.O. Box 50106 • 1700 West Grant Road
Tucson, Arizona 85703
(602) 622-4836

REPORT OF ANALYSIS

JOB NO. TFQ 143
June 12, 1981

SUPERIOR OIL COMPANY
Attn: Mr. John Ladd
P.O. Box 12487
Tucson, Arizona 85732

Analysis of 3 Split Core Samples

ITEM	SAMPLE NO.	Na_2O %
1	37025	.69
2	37035	1.40
3	37038	7.30

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Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 9425

James A. Martin
Arizona Registered Assayer No. 11122

REPORT FOR: Superior Oil Company, Minerals Division

COVERING: Borehole PEM Survey

OVER THE: Boreholes BH-1 and BH-2 in Arizona

SURVEY BY: Crone Geophysics Limited, Mississauga, Ontario

REPORT BY: David Anderson, Geophysicist

DATED: December 10th, 1981

INTERPRETATION:

No conductors were detected in boreholes BH-1 or BH-2.

RECEIVED
DEC 18 1981
SUPERIOR OIL
TUCSON, AZ 85715

Respectfully submitted,

David Anderson
Geophysicist

HENRY E. CORDES
MAYER, ARIZONA

SUPERIOR OIL COMPANY, MINERALS DIVISION ARIZONA BOREHOLE SURVEY

INTERPRETATION

Borehole No.	Tx Loop	Meters Surveyed	Anomaly Depth	Type	σt mhos	Remarks
BH-1	1	275				No conductors detected in the hole
BH-2	2	375				" "

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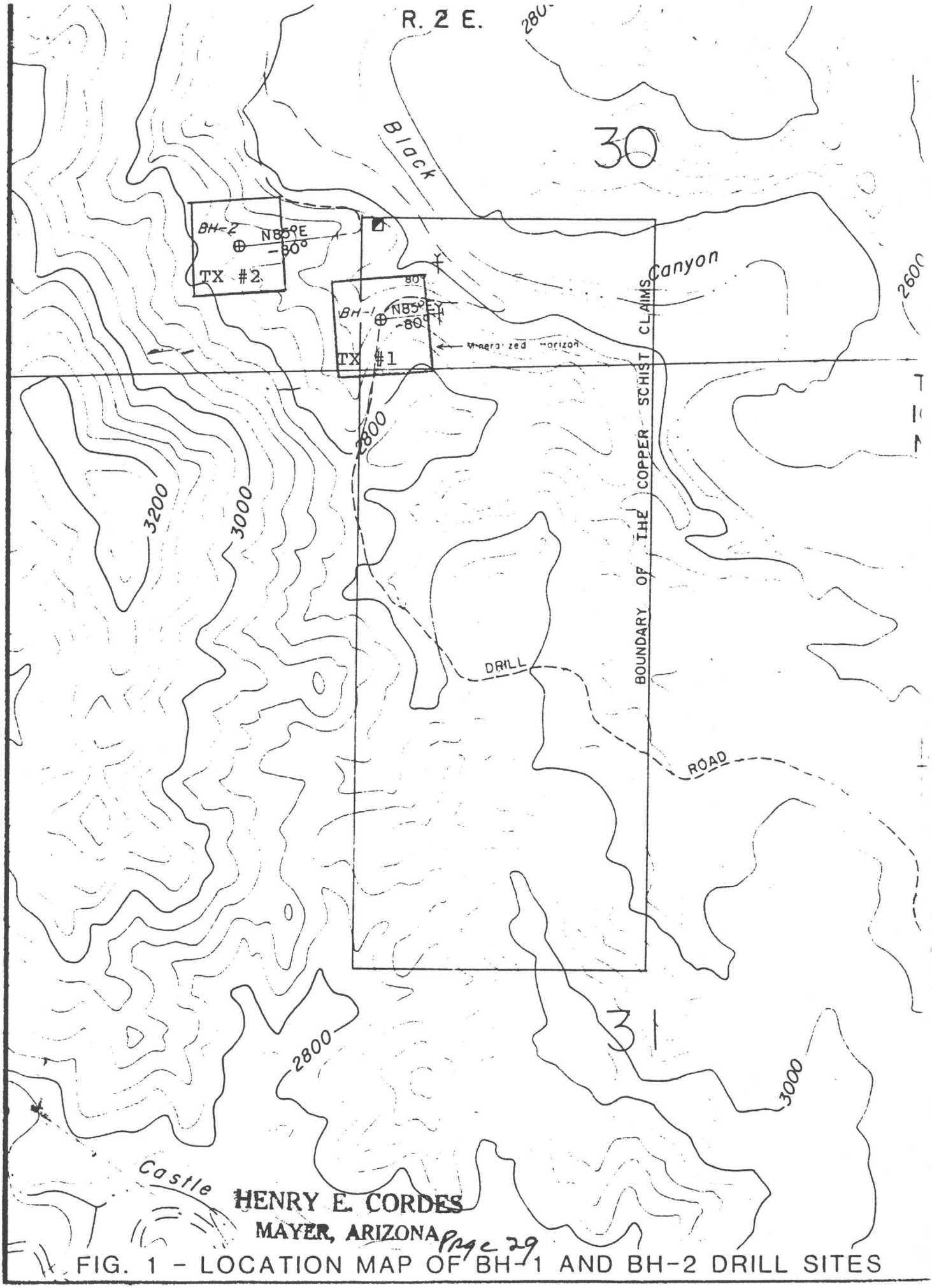
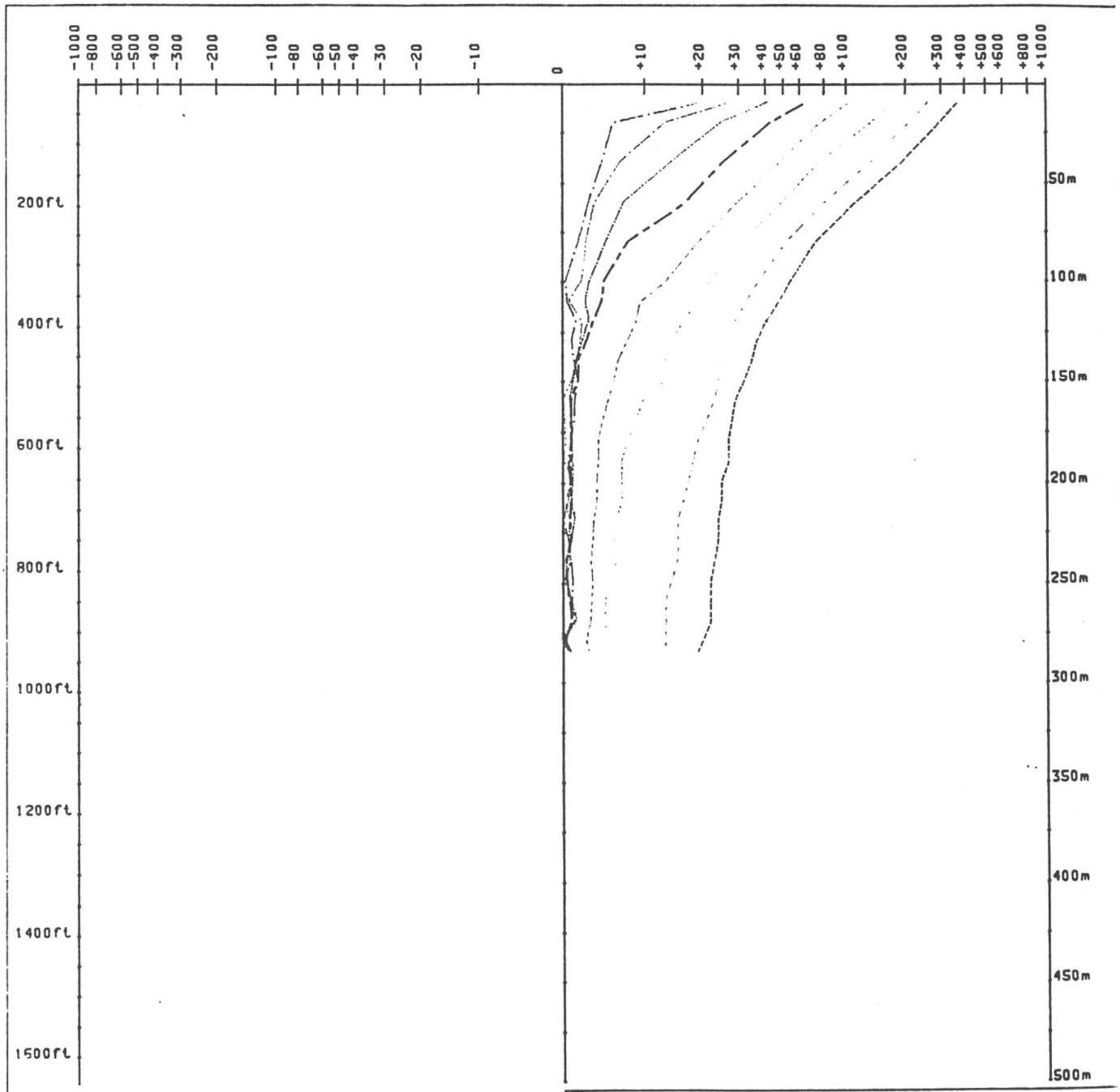


FIG. 1 - LOCATION MAP OF BH-1 AND BH-2 DRILL SITES

SUPERIOR OIL- ARIZONA, TRANSMITTER LOOP LOCATION MAP



Channel 1 =
Channel 2 =
Channel 3 =
Channel 4 =
Channel 5 =
Channel 6 =
Channel 7 =
Channel 8 =

DDH =
Tx Loop =
Scale = 1:2000

Attenuator:

CRONE GEOPHYSICS LTD

BOREHOLE PEM

CLIENT:
AREA:
DATE:

DDH #:
LOCATION:
Tx LOOP:
LOCATION:
GAIN: RAMP TIME: TIME BASE:

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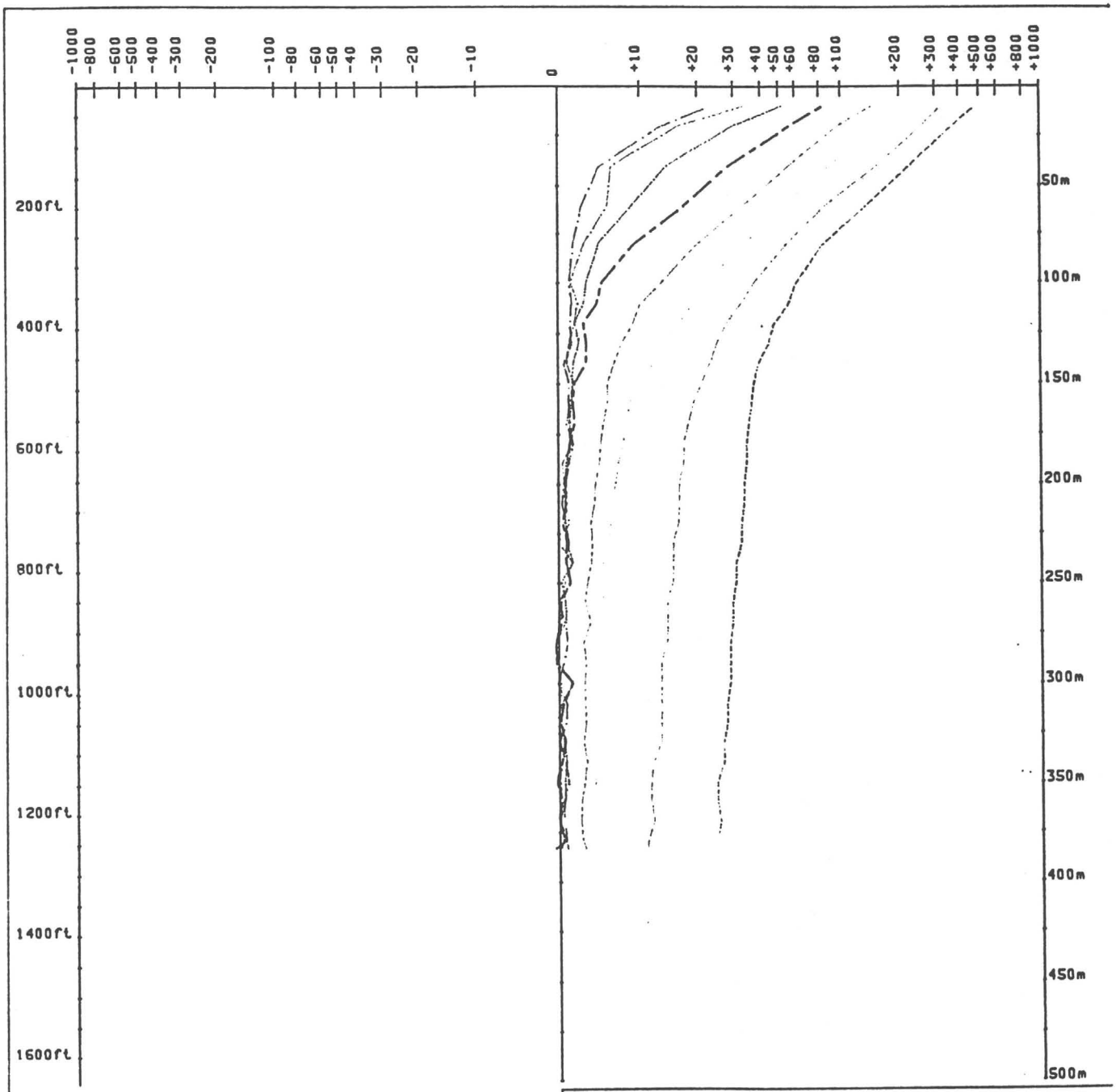

Channel 1 =
Channel 2 =
Channel 3 =
Channel 4 =
Channel 5 =
Channel 6 =
Channel 7 =
Channel 8 =

DDH =
Tx Loop =
Scale = 1:2000

Attenuator:

CRONE GEOPHYSICS LTD

BOREHOLE PEM

CLIENT:
AREA:
DATE:

DDH #
LOCATION:
Tx LOOP:
LOCATION:
GAIN: RAMP TIME: TIME BASE:

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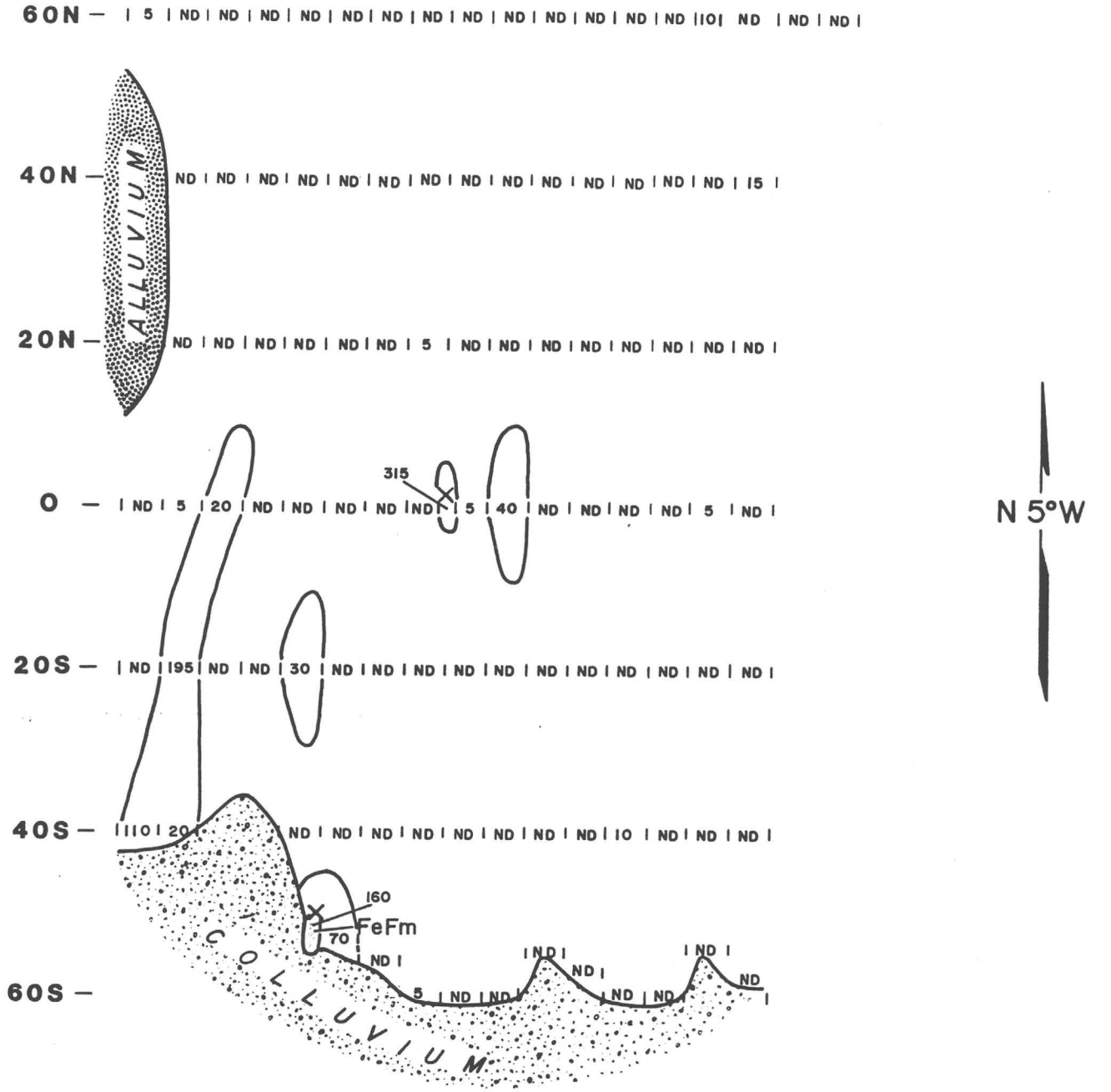

EXPLANATION

0 10 20 FEET

———	≥ 20ppb
ND	No detection (Detection limit is 5 ppb)
Ydr	Rhyolitic to dacite flows and tuffs
Fe Fm	Iron Formation
X	Prospect pit

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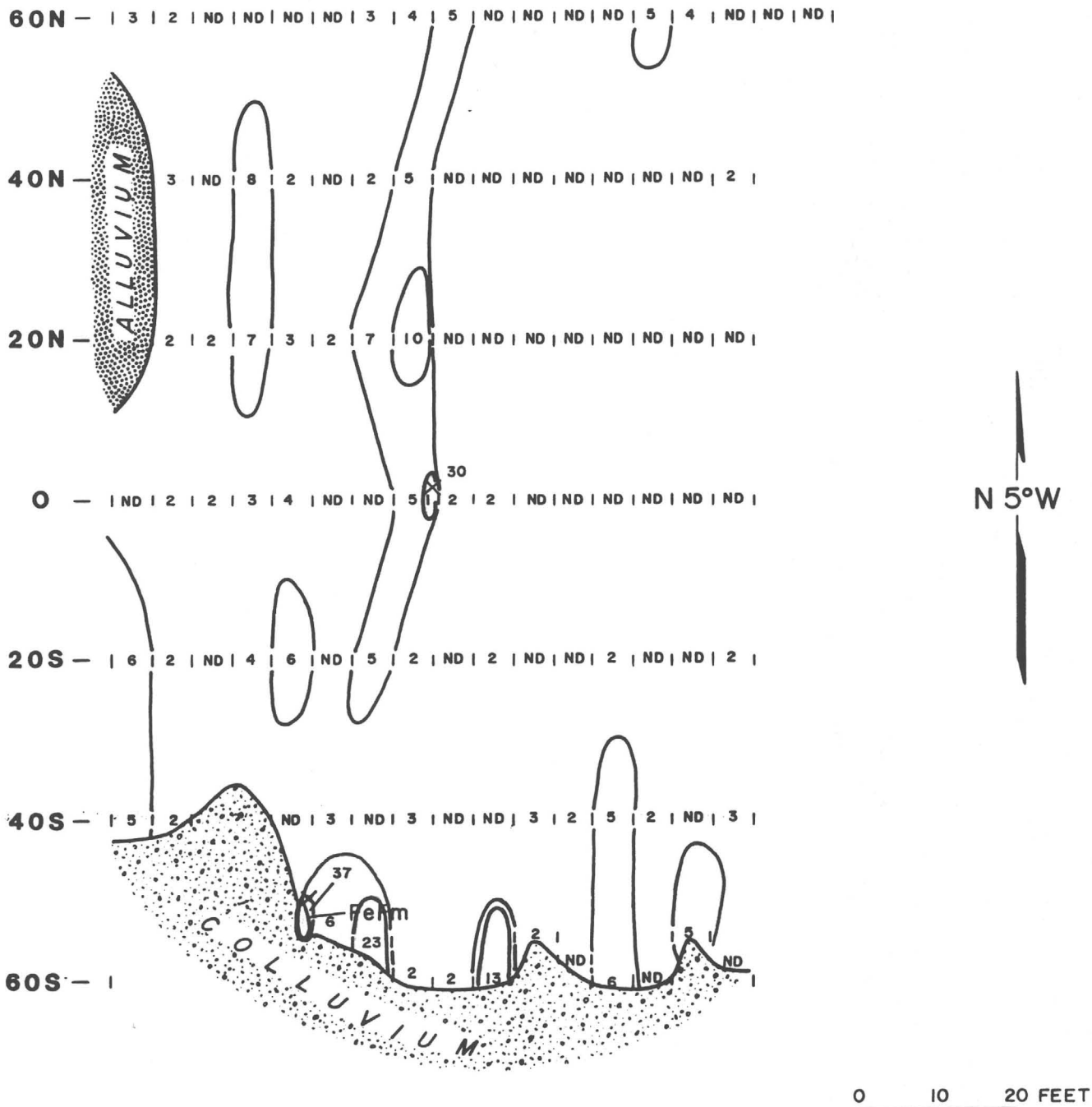
DENVER, ARIZONA

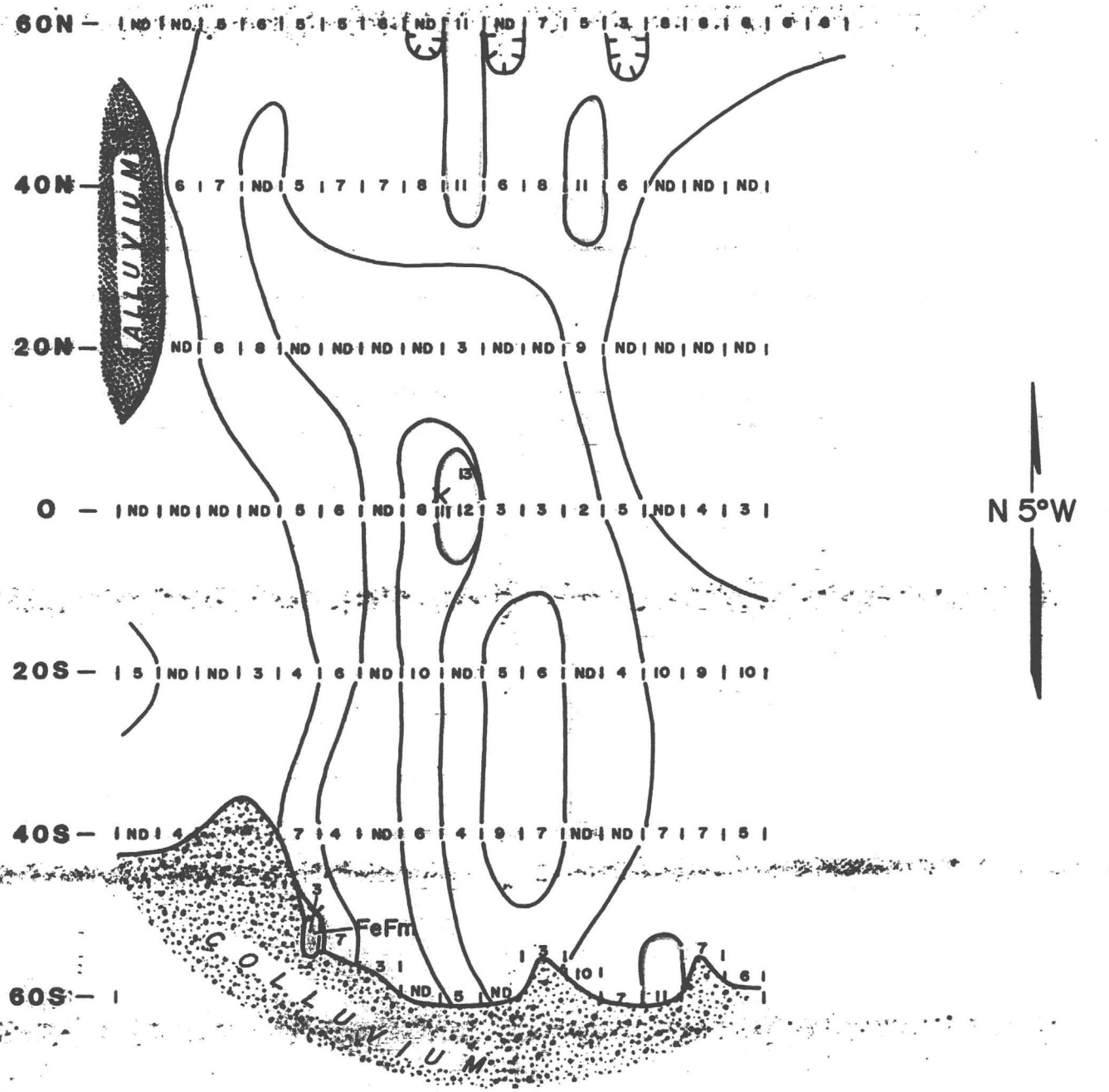
Fig.7: GOLD CONTENT OF SAMPLES FROM BH-Au#2(in ppb)



EXPLANATION

——	≥ 5ppm
——	≥ 10ppm
ND	No detection (detection limit is 2ppm)
Ydr	Rhyolitic to dacitic flows and tuffs
FeFm	Iron Formation
×	Prospect pit

Fig.8: ARSENIC CONTENT OF SAMPLES FROM BH-Au#2(in ppm)



EXPLANATION

——	≥ 5ppm
——	≥ 11ppm
ND	No detection (detection limit is 2ppm)
Ydr	Rhyolitic to dacitic flows and tuffs
FeFm	Iron Formation
×	Prospect pit

Fig.9: ANTIMONY CONTENT OF SAMPLES FROM BH-Au#2(in ppm)

NOTES: Yellow=Dacitic to chloritic flows and tuffs or quartz porphyry.
Green=Andesitic to dacitic flows and tuffs
Red=Intrusive rock
Blue=Black schist lens
Orange=Quartz vein
wwww=Fault zone or broken rock
All assays in PPM unless noted otherwise.

Scale: 1"=10'

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Minerals Division

DRILL LOG

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2735	5	0	-	-		0-10: Core lost.								-	-	-	-	-	-	-	-
2725	15	85 100	M	30		10-35: Coarse, felsic fragmental with angular clasts in banded limonitic matrix. Pyrite occurs as coarse grains and stringers parallel to foliation. A few quartz phenocrysts.								1-5	1/2	1/0	185	<5	5	<.02	<.2
2715	25	80 95	H	30										<1	1/0	1/0	-	-	-	-	-
2706	35	95	M	30										2-4	1/2	1/0	330	<5	30	<.02	<.2
2696	45	95 100 100	M	30		35-100: Light grey tuffaceous rock locally with quartz phenocrysts and numerous chert or quartz clasts of various sizes. Some dark layers (biotite?) and white layers (feldspars?) produce banding. Ratio of phenocrysts to clasts fluctuates. Locally minor specular hematite or Mn oxide. Pyrite occurs as stringers and as individual grains within bands rich in pyrite. Bands and stringers both parallel to foliation (and bedding?). Pyritization strongest in well layered, fine grained, unsilicified tuff.								<1 1-3 <1	1/0 2/1 1/0	1/0 1/0 1/0	- 380 -	- <5 -	- 5 -	- <.02 -	- <.2 -

NOTES:

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DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA
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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
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DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
2686	55	100	M	30								<1	1/0	1/0	-	-	-	-	-
2676	65	85 100	M	30								1-4	2/1	1/0	265	<5	20	<.02	<.2
2656	75	100 100	H	30		75-77: Fault gouge.						1-3	2/1	1/0	85	<5	5	<.02	<.2
												<1	1/0	1/0	-	-	-	-	-
2646	85	100	M	30								1-4	2/1	1/0	165	<5	20	<.02	<.2
2647	95	100	M	30								1-4	2/1	1/0	255	<5	10	<.02	<.2

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DRILL LOG

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
2637	105	100, 85	M	30		100-116: Like 35-100 but with stronger alteration. 102: Quartz vein, one foot thick. 106: Clay filled fault zone.						1-3	2/1	1/0	195	<5	400	<.02	<.2
2627	115	100, 95, 95	H	30		116-118: Quartz porphyry with a fine-grained, white, tuffaceous matrix and some dark colored bands. 118-242: Like 35-100. 120-121: Clay filled fault zone.						<1	1/0	1/0	-	-	-	-	-
2617	125	80, 95, 90	H	30		126-132: Partially cemented fault gouge.						1-3	2/1	1/0	235	<5	20	<.02	<.2
												0	-	-	-	-	-	-	-
2607	135	85, 90	H	30								1-3	5/1	1/0	265	<5	10	<.02	<.2
2597	145	100	L	35		146: Partially cemented fault gouge.						<1	1/0	1/0	-	-	-	-	-

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NOTES:

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DRILL LOG

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl	SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2588	155	100	M	30								1-3	2/1	1/0	255	<5	5	<.02	<.2
												<1	1/0	1/0	-	-	-	-	-
												1-4	2/1	1/0	210	<5	15	<.02	<.2
2578	165	100	M	30															
		100				168-171: Several layers of quartz porphyry interbedded with normal tuff breccia.													
2568	175	100	M	30															
2558	185	100	M	35								<1	1/0	1/0	-	-	-	-	-
		85																	
2548	195	95	M	35		196-197: Clay filled fault zone.													
						199: Quartz vein, 2" wide.													

NOTES:

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DRILL LOG

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HOLE NO. BH-2
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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
		100												<1	1/0	1/0	-	-	-	-	-
		100																			
2539	205	85	H	30	TS									1-3	2/1	1/0	175	<5	20	<.02	<.2
2529	215	100	H	30										<1	1/0	1/0	-	-	-	-	-
		95																			
2519	225	95	M	30										1-3	1/1	1/0	180	<5	10	<.02	<.2
		100																			
						230-231: Silicified breccia in fault zone								<1	1/0	1/0	-	-	-	-	-
2509	235	100	L	35										1-2	1/2	1/0	115	<5	10	<.02	<.2
		90																			
2499	245		M	35		242-246: Quartz porphyry with small phenocrysts in pale green, cherty matrix. 246-401: Like 35-100.								<1	1/0	1/0	-	-	-	-	-
														1-2	2/1	1/0	225	<5	15	<.02	<.2

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DRILL LOG

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Page 6'

HOLE NO. BH-2
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START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2490	255	90, 95	M	30										<1	1/0	1/0	-	-	-	-	-
2480	265	95, 100	L	35										1-3	1/1	1/0	255	<5	40	<.02	<.2
2470	275	100	M	35		272-278: Section with large, streched quartz pebbles. Streching along plane of foliation.								<1	1/0	1/0	-	-	-	-	-
														1-3	2/1	1/0	200	<5	15	<.02	<.2
2460	285	100	M	30										<1	1/0	1/0	-	-	-	-	-
						288: Clay cemented fault zone.								1-3	2/1	1/0	210	<5	20	<.02	<.2
2451	295	80	M	35										<1	1/0	1/0	-	-	-	-	-

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DRILL LOG

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
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LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2441	305	100																			
		95	M	35										1-3	2/1	1/0	135	<5	20	<.02	<2
		100												<1	1/1	1/0	-	-	-	-	-
2431	315	100	M	30										1-3	2/1	1/0	220	<5	15	<.02	<2
2421	325	95	L	30		320-325: Fine-grained tuff, almost unaltered, with only a few small quartz phenocrysts or felsic clasts.								<1	1/0	1/0	-	-	-	-	-
						327: Calcite vein, 2 inches wide.															
2412	335	95	M	30										1-3	5/1	1/0	150	<5	25	<.02	<2
2402	345	95	L	30										<1	1/0	1/0	-	-	-	-	-

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DRILL LOG

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
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START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
2392	355	95	M	30								<1	1/0	1/0	-	-	-	-	-
		100				358: Fault gouge for one half foot													
2382	365	100	M	30								1-4	2/1	1/0	245	<5	25	.06	<2
2373	375	100	M	30								<1	1/0	1/0	-	-	-	-	-
		90										1-4	1/1	1/0	310	<5	20	<.02	<2
2363	385	90	M	30		380-392: Large number of coarse, streched quartz clasts.													
		95										<1	1/0	1/0	-	-	-	-	-
2353	395	90	H	30		395-396: One foot section of fault gouge.													
						398-400: Clear, dark chert, possibly an exhalite.													

NOTES:

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DRILL LOG

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
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START 4/10/81 STOP 4/30/81
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Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/YN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
		100				400-406: Like 320-325																	
2343	405	100	M	30		405-458: Quartz porphyry with small phenocrysts of quartz in a cherty matrix with some chlorite, pyrite, and specular hematite or Mn oxide .																	
		100																					
2334	415	100	M	30																			
3424	425	100	M	30																			
		100												<1	1/0	1/0		-	-	-	-	-	
2314	435	100	M	30																			
		100																					
2304	445	100	H	30																			
		100																					

NOTES:

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DRILL LOG

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
2295	455	100	H	30		449-452: Broken rock with numerous faults.						<1	1/0	1/0	-	-	-	-	-
		100																	
		100				457-458: Fault gouge.													
						458-462: Like 35-100.						1-3	2/1	1/0	230	<5	15	<.02	<.2
2285	465	100	H	25		461-462: Fault gouge.													
		100				462-480: Like 406-458 except matrix is fragmental and these are a few coarse clasts.						<1	1/0	1/0	-	-	-	-	-
		100																	
2275	475	90	H	30															
		95																	
		95				479-480: Clay cemented fault gouge.													
2266	485		M	30		480-663: Like 35-100						1-4	1/2	1/0	225	<5	10	<.02	<.2
2256	495		H	30								1-3	2/1	1/0	210	<5	10	<.02	<.2
												<1	1/0	1/0	-	-	-	-	-

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THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA
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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
2246	505	100	M	30		502-503: Dark, clear quartz vein, one foot thick.													
		100																	
		95										<1	1/0	1/0	-	-	-	-	-
2237	515	100	M	35															
												1-3	1/2	1/0	130	<5	20	<.02	<2
2227	525	100	M	35															
		100										<1	1/0	1/0	-	-	-	-	-
		100																	
2217	535	100	M	30								1-3	1/1	1/0	265	<5	20	<.02	<2
		100																	
2208	545		M	30								1-3	1/1	1/0	220	<5	25	<.02	<2
												<1	1/0	1/0	-	-	-	-	-

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2198	555	90	M	30										1-4	1/2	1/0	220	<5	20	<.02	<.2
2188	565	90	L	30										1-3	1/1	1/0	185	<5	25	<.02	<.2
2179	515	100 40	M	30										1-3	1/1	1/0	165	<5	5	<.02	<.2
2169	585	95 100	M	30										2-4	1/2	1/0	160	<5	20	<.02	<.2
2159	595	100	M	30	TS									2-4	1/1	1/0	165	<5	5	<.02	<.2

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl	SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2150	605	95	L	30	TS	607-611: Exceptionally large quartz or chert clasts, flattened along plane of foliation.						1-4	1/2	1/0	245	<5	5	<.02	<.2
2140	615	95	M	30		617: Clay cemented fault gouge.						1-3	1/1	1/0	580	<5	10	<.02	<.2
2130	625	95, 100	M	30								<1	1/0	1/0	-	-	-	-	-
2121	635	100, 100	M	35								~~2-4~~	~~1/1~~	~~1/0~~	~~285~~	~~<5~~	~~10~~	~~<.02~~	~~<2~~
2111	645	100, 100	M	35								<1	1/0	1/0	-	-	-	-	-

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
		100												<1	1/0	1/0	-	-	-	-	-
		100																			
2101	655		M	25										1-2	5/1	1/0	205	<5	35	<.02	<.2
		100																			
2092	665		L	35	TS	663-667: Massive, fractured silica. Probably cherty, Fe-poor exhalite								0	-	-	-	-	-	-	-
						667-670: Like 35-100.															
						670-677: Like 663-667 but with some interbedded layers of pyrite-bearing, layered felsic tuff.															
2082	675	100	L	30										0-4	1/2	1/0	450	<5	95	<.02	<.2
						677-853: Like 35-100.															
		100												1-3	2/1	1/0	175	<5	35	<.02	<.2
2072	685	100	M	35																	
		100																			
2063	695		M	35										1	1/1	1/0	-	-	-	-	-

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2053	705	95	M	35										<1	1/1	1/0	–	–	–	–	–
		30												1-3	1/2	1/0	245	<5	15	<.02	<2
2044	715	95	M	30										<1	1/0	1/0	–	–	–	–	–
		100												1-2	1/1	1/0					
2034	725	100	M	35																	
2025	735	95	M	35										<1	1/0	1/0	–	–	–	–	–
2015	745	90	M	35																	

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
		95																					
2006	755	100	M	40																			
		95																					
1996	765	95	H	40		763-764: Clay filled fault zone.																	
1987	775	100	M	40		772: Quartz vein, 3 inches wide.								<1	1/0	1/0		-	-	-	-	-	
		90				780: Quartz vein, 3 inches wide.																	
1977	785	100	M	40																			
		100																					
		75																					
1968	795	75	H	35																			

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1958	805	100	H	40																			
		100				807-815: Fault zone with broken rock, clay cemented fault gouge, and uncemented gouge.																	
1949	815	100	H	40																			
		100																					
		100																					
1939	825	95	H	40										<1	1/0	1/0		-	-	-	-	-	
		100																					
		70				827-829: Fault zone with partially cemented gouge.																	
		70				829-831: Chert, like 663-667.																	
1930	835	100	H	40																			
		100																					
		100																					
1920	845	90	H	40																			
		95																					
		100																					
		95																					

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1911	855	100	M	40																			
		100												<1	1/0	1/0		-	-	-	-	-	
		100				858-865: Massive, fractured chert, may be exhalite. Minor Mn oxide or specular hematite in fractures, also minor mica.																	
1901	865	100	M	40																			
		100				865-868: Like 35-100.																	
						867: Quartz filled fault zone.								2-3	2/1	1/0		160	<5	15	<.02	<.2	
		85				868-885: Like 858-865.																	
1892	875	100	L	35																			
		95												<1	1/0	1/0		-	-	-	-	-	
1882	885	100	L	35																			
		100				885-923: Gradational change over four feet to rock like 35-100. In between is fractured chert in sericitic, tuffaceous matrix with the amount of matrix gradually increasing.																	
														2	2/1	1/0		270	<5	20	<.02	<.2	
1873	895	100	M	35																			
														<1	1/0	1/0		-	-	-	-	-	

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DRILL LOG

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MAYER, ARIZONA
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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
1836	905	95	M	40	TS									1-2	2/1	1/0					
1854	915	95	M	35										<1	1/0	1/0	-	-	-	-	-
1844	925	90	H	35		923-926: Cherty exhalite, like 858-868. Interbedded with thin layers of strongly pyritized, banded tuff. 926-947: Like 35-100.								0-5	1/2	1/0					
1835	935	100	M	35										<1	1/0	1/0	-	-	-	-	-
1825	945	95	H	35		947-950: Fractured, clear chert interbedded with minor tuff.															

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
		100				950-980: Like 35-100.															
1816	955		L	35										<1	1/0	1/0	-	-	-	-	-
														1-3	2/1	1/0	185	<5	40	<.02	<.2
		95																			
1806	965		L	35										<1	1/0	1/0					
1797	975	95	M	35										1-2	2/1	1/0	95	<5	10	<.02	<.2
														<1	1/0	1/0	-	-	-	-	-
1787	985	90	L	40	TS	980-990: Fine to medium grained, pervasively chloritized rock, probably andesite. Minor banding due to feldspar rich layers. Disseminated pyrite concentrated in certain layers.								1-4	2/1	1/0					
		100				990-1002: Like 35-100.															
1778	995		M	40										<1	1/0	1/0	-	-	-	-	-

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1768	1005	100	L	35		1002-1010: Like 980-990.																	
		100				1006: Qtz vein, two inches wide.																	
1759	1015	85	M	40		1010-1060: Like 35-100.																	
		90												<1	1/0	1/0		-	-	-	-	-	
1749	1025	90	M	40																			
1740	1035	100	M	35																			
					TS									1-2	2/1	1/0							
1730	1045	95	M	40										<1	1/0	1/0		-	-	-	-	-	

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1721	1055	95	M	40								<1	1/0	1/0	-	-	-	-	-
1711	1065	95	M	40		1060-1066: Strongly pyritized andesite, like 980-990.						1-4	1/2	1/0					
						1066-1074: LIke 35-100.						<1	1/0	1/0	-	-	-	-	-
1702	1075	90	M	40		1074-1080: Andesite, like 980-990.						1-3	1/5	1/0					
						1080-1086: Like 35-100.						<1	1/0	1/0	-	-	-	-	-
1692	1085	100	L	35		1086-1091: Andesite, like 980-990.						1-2	1/1	1/0					
1683	1095	100	L	35		1091-1109: Like 35-100, interbedded with some layers of chert.						<1	1/1	1/0	-	-	-	-	-
		100																	

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl	SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
1673	1105	100	L	35		1105: Qtz. vein, 2" wide.						<1	1/0	1/0	-	-	-	-	-
1664	1115	100	L	35		1109-1114: Like 980-990. 1114-1125: Like 1091-1109.						1-3	2/1	1/0					
1654	1125	100	L	35		1125-1134: Like 980-990.						<1	1/0	1/0	-	-	-	-	-
1645	1135	100	M	35		1134-1141: Fine grained chloritic rock with bands of qtz. feldspar. Probably felsic rock.						1-3	1/1	1/0					
1636	1145	95	L	35		1141-1184: Like 1091-1109.						<1	1/0	1/0	-	-	-	-	-

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1627	1155	95	L	35										<1	1/0	1/0	-	-	-	-	-
														1-2	1/1	1/0					
1617	1165	95	M	35										<1	1/0	1/0	-	-	-	-	-
														1-2	2/1	1/0					
1608	1175	95	M	40										<1	1/0	1/0	-	-	-	-	-
														1-2	2/1	1/0					
1598	1185	100	M	40		1184-1188: Like 980-990.															
						1188- : Like 1091-1109.								<1	1/0	1/0	-	-	-	-	-
1589	1195	100	M	35																	

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1437	1355	90	M	40		1354-1361: Quartz porphyry, like 1228-1255.													
1427	1365	95	M	35		1361-1365: Andesitic tuff, like 1255-1273. 1365-1382: Quartz porphyry, like 1228-1255.													
1418	1375	100 100	M	40		1379-1381: Thin, discontinuous fluorite veins which cut across foliation.						<1	1/0	1/0	-	-	-	-	-
1408	1385	90	L	40		1382-1394: Felsic tuff, like 1311-1318.													
1399	1395	95	L	40		1394-1400: Quartz porphyry, like 1228-1225. 1399: Quartz vein, 2" wide.													

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
		95				1252: Quartz vein, 2 inches wide.																	
1532	1255	90	M	40		1255-1273: Fine grained, chloritized tuff with feldspar phenocrysts Probably andesite.																	
		100																					
1522	1265		L	40																			
		90																					
						1273: Quartz vein, 2 inches wide.								≤1	1/0	1/0		-	-	-	-	-	
1513	1275	85	H	40		1273-1311: Like 1228-1255.																	
		100																					
1503	1285		M	35																			
		100																					
		100																					
1494	1295		M	40																			
		100																					

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

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MAYER, ARIZONA

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1579	1205	100	M	40										<1	1/0	1/0		-	-	-	-	-	
		95												1-2	5/1	1/0							
1570	1215	100	M	40																			
		95				1217-1228: Fine-grained, chloritized tuff, probably andesite.																	
1560	1225	100	H	40										<1	1/0	1/0		-	-	-	-	-	
		95				1228-1255: Quartz porphyry with small quartz phenocrysts in a fine-grained, layered, green and white matrix.																	
1551	1235		L	40																			
1541	1245		L	40																			

NOTES:

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THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1484	1305	100	M	40																			
		100																					
1475	1315	100	H	40		1311-1318: LIke 35-100 except matrix is chloritized.								<1	1/0	1/0		-	-	-	-	-	
		100				1318-1331: Post foliation, quartz-kspr-tourmaline dike. Calcite veinlets and thin veins common, some with epidote.								1-2	1/0	1/0							
1465	1325	100	L	-	TS	Disseminated pyrite in upper 2 feet. Equigranular, with intrusive texture. Contact cuts across foliation at 70° angle.																	
1456	1335	90	M	40		1331-1354: Like 1311-1318. 1332: Dike, like 1318-1331, 7" wide.								<1	1/0	1/0		-	-	-	-	-	
		90																					
1446	1345	85	H	40		1343-1345: Clay cemented fault gouge. 1345-1348: Broken core in fault gouge zone.																	
		65																					

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THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1389	1405	100	L	40		1400-1416: Felsic tuff, like 1311-1318.																	
1380	1415	100	M	40		1416-1440: Quartz porphyry, like 1228-1255.																	
		100				1426: Quartz vein, 2 inches wide.																	
1370	1425	100	L	40										<1	1/0	1/0		-	-	-	-	-	
1361	1435		M	35																			
1352	1445	95	M	35		1440-1451: Felsic tuff, like 35-100.																	

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

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HOLE NO. BH-2
PROPERTY Bland Hill (Castle)
COLLAR ELEV. 2740'
ATTITUDE N85°E, 80°
COORD. 34°12'39"N 112°11'36"W
DEPTH 1451' TYPE DDH
START 4/10/81 STOP 4/30/81
LOGGED BY IHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
		100	M	35															
						1451: End of hole.													
1342	1455																		
1333	1465																		
1325	1475																		
1317	1485																		
1304	1495																		

BONDAR-CLEGG & COMPANY LTD.

130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 122-0127

SAMPLE NUMBER / ELEMENT UNITS	As PPM	Au PPB	As PPM	Sb PPM	Ag/Au	NOTES
R 37062	0.4	160	37	3		
R 1-0E-5	0.4	10	110	ND	4.0	
R 1-0E-5-10	0.2	ND	100	6	—	
R 1-0E-10-14	0.2	ND	53	5	—	
R 1-0E-14-20	0.2	10	160	9	~~20~~	
R 1-0E-20-23	0.2	ND	53	6	—	
R 1-0E-22.5-30	0.2	ND	55	4	—	
R 1-0E-30-35	0.2	5	36	4	~~40~~	
R 1-0E-35-40	0.2	10	15	5	20	
R 1-0N-0.5-5W	1.8	85	100	ND	21.2	
R 1-0N-5-10W	7.3	1830	> 1000	ND	4.0	
R 1-0N-10-15W	6.2	3160	900	ND	2.0	
R 1-0N-15-20W	0.2	55	48	3	3.6	
R 1-0N-20-25W	0.2	20	53	ND	~~10~~	
R 1-0N-25-30W	0.2	10	33	15	~~20~~	
R 1-0N-30-35WA	0.2	15	87	12	~~13.3~~	
R 1-0N-30-35WB	0.2	15	800	8	~~13.3~~	
R 1-0N-35-39W	0.2	ND	13	ND	—	
R 1-0N-39-40W	0.2	5	18	12	~~40~~	
R 1-20N-0-5E	13.0	1690	300	ND	7.7	
R 1-20N-5-10E	1.9	1020	67	ND	1.9	
R 1-20N-10-15E	0.6	25	35	ND	24	
R 1-20N-15-20E	0.4	205	90	4	2.0	
R 1-20N-20-25E	0.2	35	600	21	~~5.7~~	
R 1-20N-0-5W	4.4	265	800	ND	16.6	
R 1-20N-5-10W	2.2	955	> 1000	2	2.3	
R 1-20N-10-15W	3.4	>10000	800	ND	~~0.34~~ 0.01	
R 1-20N-15-20W	0.2	130	600	3	~~115~~	
R 1-20N-20-25W	0.2	220	240	5	0111	
R 1-20N-25-30W	0.2	50	52	8	~~4~~	

SAMPLE NUMBER / ELEMENT UNITS	As PPM	Au PPB	As PPM	Sb PPM	Ag/Au	NOTES
R 1-20N-35-40W	0.2	ND	41	11	—	
R 1-40N-0-5E	0.2	ND	125	ND	—	
R 1-40N-5-10E	0.2	5	160	4	~~40~~	
R 1-40N-20-25E	0.8	110	120	ND	7.3	
R 1-40N-25-30E	0.2	10	22	8	~~20~~	
R 1-40N-30-35E	0.2	ND	40	5	—	
R 1-40N-0-5W	0.3	ND	73	4	—	
R 1-40N-5-10W	6.7	135	150	ND	49.6	
R 1-40N-10-15W	9.6	3630	> 1000	ND	2.6	
R 1-40N-15-20W	0.6	160	250	ND	3.7	
R 1-40N-20-25W	0.2	65	43	3	~~3.1~~	
R 1-40N-25-30W	0.2	5	12	ND	~~40~~	
R 1-40N-30-35W	0.2	5	19	6	~~40~~	
R 1-40N-35-40W	0.2	ND	53	3	—	
R 1-60N-0-5E	0.2	5	53	4	~~40~~	
R 1-60N-5-10E	0.2	ND	42	ND	—	
R 1-60N-10-15E	0.2	ND	13	4	—	
R 1-60N-15-20E	0.2	ND	22	3	—	
R 1-60N-20-25E	0.2	5	23	3	~~40~~	
R 1-60N-25-30E	0.2	5	12	3	~~40~~	
R 1-60N-30-35E	0.2	75	165	ND	~~2.7~~	
R 1-60N-35-40E	0.2	40	80	18	~~5.0~~	
R 1-60N-0-5W	1.9	175	165	3	10.8	
R 1-60N-5-10W	0.2	10	> 1000	4	~~20~~	
R 1-60N-10-15W	0.2	ND	24	ND	—	
R 1-60-15-20W	0.8	730	200	5	1.1	
R 1-60-20-25W	0.2	160	180	6	~~1.25~~	
R 1-60N-25-30W	0.2	10	42	4	~~20~~	
R 1-60N-30-35W	0.2	ND	14	11	—	
R 1-60N-35-40W	0.2	ND	15	6	—	

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Geochemical Lab Report

REPORT: 222-0322 PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	As PPM	Au PPB	Sb PPM	NOTES
R 37063		1.0		95		
R 37067		0.2		5		
R 37068		0.2		10		
R 37069		0.2		80		
R 37070		0.2		35		
R 80N-0-5E		0.2	44	ND	4	
R 80N-5-10E		0.2	180	ND	7	
R 80N-10-15E		0.2	6	ND	9	
R 80N-15-20E		0.2	21	ND	7	
R 80N-20-25E		0.2	130	20	8	
R 80N-25-30E		0.2	39	40	10	
R 80N-0-5W		0.2	29	5	6	
R 80N-5-10W		0.2	280	25	7	
R 80N-10-15W		0.2	210	105	ND	
R 80N-15-20W		0.2	> 1000	485	17	
R 80N-20-25W		0.2	32	65	6	
R 80N-25-30W		0.2	33	180	7	
R 80N-30-35W		0.2	28	20	4	
R 80N-35-40W		0.2	46	30	6	
R 80N-40-45W		0.2	5	ND	6	
R 80N-45-50W		0.2	12	20	7	
R 100N-0-5E		0.2	900	45	14	
R 100N-10-15E		0.2	450	320	8	
R 100N-15-20E		0.2	63	5	3	
R 100N-20-25E		0.2	12	ND	4	
R 100N-15-20W		0.2	85	85	ND	
R 100N-20-25W		0.2	> 1000	1220	10	
R 100N-25-30W		1.0	300	900	9	
R 100N-30-35W		0.2	40	150	5	
R 100N-35-40W		0.2	130	105	4	

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	As PPM	Au PPB	Sb PPM	NOTES
R 100N-40-45W		0.2	26	25	4	
R 100N-45-50W		0.2	120	255	120	
R 100N-50-55W		0.2	80	100	4	
R 120N-0-5E		0.2	70	170	ND	
R 120N-5-10E		0.2	> 1000	315	11	
R 120N-10-15E		2.1	260	1770	26	
R 120N-15-20E		0.2	51	65	ND	
R 120N-0-5W		0.2	53	35	ND	
R 120N-5-10W		0.2	60	30	2	
R 120N-10-15W		0.2	100	10	9	
R 120N-15-20W		0.2	70	10	ND	
R 120N-20-25W		0.2	220	45	ND	
R 120N-25-30W		0.2	280	10	ND	
R 120N-30-35W		1.6	750	725	ND	
R 120N-35-40W		0.2	24	10	ND	
R 120N-40-45W		1.7	> 1000	460	55	
R 120N-45-50W		0.7	600	355	11	
R 140N-0-5E		0.2	42	30	9	
R 140N-5-10E		0.2	200	40	5	
R 140N-10-15E		0.2	120	330	8	
R 140N-15-20E		0.2	33	105	ND	
R 140N-5-10W		0.2	22	85	3	
R 140N-10-15W		0.2	120	60	25	
R 140N-15-20W		0.2	47	40	12	
R 140N-20-25W		0.2	80	10	ND	
R 140N-25-30W		0.2	62	15	ND	
R 140N-30-35W		0.2	170	120	3	
R 140N-35-40W		0.2	260	275	4	
R 140N-40-45W		5.1	> 1000	4390	16	
R 140N-45-50W		0.2	900	325	12	

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Geochemical Lab Report

REPORT: 222-0322 PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	As PPM	Au PPB	Sb PPM	NOTES
R 140N-50-55W		0.2	65	20	3	
R 140N-55-60W		0.2	47	ND	9	
R 160N-0-5E		0.2	32	25	3	
R 160N-5-10E		0.2	8	10	6	
R 160N-10-15E		0.2	24	ND	4	
R 160N-15-20E		0.2	9	15	ND	
R 160N-0-5W		0.2	28	ND	ND	
R 160N-5-10W		0.2	190	ND	ND	
R 160N-10-15W		0.2	120	10	8	
R 160N-15-20W		0.2	80	ND	ND	
R 160N-20-25W		0.2	700	25	ND	
R 160N-25-30W		0.2	150	ND	ND	
R 160N-30-35W		0.2	110	20	ND	
R 160N-45-50W		2.2	500	270	ND	
R 160N-50-55W		0.2	200	20	ND	
R 160N-55-60W		0.2	27	35	ND	
R 180N-0-5E		0.2	160	ND	ND	
R 180N-5-10E		0.2	43	15	ND	
R 180N-10-15E		0.2	22	ND	ND	
R 180N-15-20E		0.2	32	ND	ND	
R 180N-0-5W		0.2	33	5	5	
R 180N-5-10W		0.2	12	ND	ND	
R 180N-10-15W		0.2	25	65	ND	
R 180N-15-20W		0.2	18	10	ND	
R 180N-20-25W		0.2	80	20	ND	
R 180N-25-30W		0.2	190	10	6	
R 180N-30-35W		0.2	100	ND	ND	
R 180N-35-40W		0.2	85	60	ND	
R 180N-40-45W		0.2	700	25	11	
R 180N-45-50W		2.6	> 1000	300	6	

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	As PPM	Au PPB	Sb PPM	NOTES
R 180N-50-55W		0.2	100	5	9	
R 180N-55-60W		0.2	33	5	6	
R 200N-0-5E		0.2	34	5	2	
R 200N-5-10E		0.2	80	ND	ND	
R 200N-10-15E		0.2	11	ND	6	
R 200N-0-5W		0.2	13	ND	3	
R 200N-5-10W		0.2	58	ND	3	
R 200N-25-30W		0.2	21	ND	3	
R 200N-30-35W		0.2	400	15	3	
R 200N-35-40W		0.2	240	45	2	
R 200N-40-45W		0.2	38	ND	8	
R 200N-45-50W		0.2	50	15	ND	
R 200N-50-55W		0.2	65	ND	3	
R 200N-55-60W		0.2	200	65	3	
R 200N-60-65W		0.2	85	ND	6	
R 220N-0-5E		0.2	12	ND	ND	
R 220N-5-10E		0.2	6	ND	ND	
R 220N-0-5W		0.2	6	ND	ND	
R 220N-5-10W		0.2	20	ND	ND	
R 220N-10-15W		0.2	120	ND	ND	
R 220N-25-30W		0.7	240	35	ND	
R 220N-30-35W		0.2	45	5	ND	
R 220N-35-40W		0.2	400	215	ND	
R 220N-40-45W		0.2	> 1000	120	7	
R 220N-45-50W		0.2	70	5	ND	
R 220N-50-55W		0.2	7	ND	ND	
R 220N-55-60W		0.2	60	ND	ND	
R 220N-60-65W		0.2	120	5	ND	
R 220N-65-70W		0.2	80	ND	5	
R 240N-0-5E		0.2	10	10	ND	

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Geochemical Lab Report

REPORT: 222-0322 PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	As PPM	As PPM	Au PPB	Sb PPM	NOTES
R 240N-5-10E		0.2	21	ND	ND	
R 240N-0-5W		0.2	25	ND	ND	
R 240N-5-10W		0.2	110	ND	ND	
R 240N-10-15W		0.2	55	ND	ND	
R 240N-15-20W		0.2	21	ND	ND	
R 240N-35-40W		0.2	260	50	5	
R 240N-40-45W		0.2	140	25	ND	
R 240N-45-50W		0.2	75	10	ND	
R 240N-50-55W		0.2	85	ND	12	
R 240N-55-60W		0.2	32	ND	17	
R 240N-60-65W		0.2	35	90	3	
R 240N-65-70W		0.2	42	50	65	
R 260N-0-5E		0.2	19	15	7	
R 260N-5-10E		0.2	25	ND	10	
R 260N-0-5W		0.2	21	ND	7	
R 260N-5-10W		0.2	10	ND	7	
R 260N-10-15W		0.2	3	ND	6	
R 260N-15-20W		0.2	25	10	36	
R 260N-20-25W		0.2	12	ND	3	
R 260N-25-30W		0.2	10	ND	6	
R 260N-30-35W		0.2	51	ND	7	
R 260N-35-40W		0.2	38	ND	ND	
R 260N-40-45W		0.2	190	ND	ND	
R 260N-45-50W		0.4	54	160	930	
R 260N-50-55W		0.2	13	5	58	
R 260N-55-60W		0.2	40	20	30	
R 260N-60-65W		0.2	> 1000	35	10	
R 260N-65-70W		0.2	42	ND	ND	
D 37916		0.2		ND		
D 37917		0.2		5		
D 37918		0.2		10		
D 37919		0.2		ND		
D 37920		0.2		ND		
D 37921		0.2		ND		
D 37922		0.2		ND		
D 37923		0.2		ND		
D 37924		0.2		ND		
D 37925		0.2		ND		
D 37926		0.2		ND		
D 37927		0.2		ND		
D 37928		0.2		ND		
D 37929		0.2		10		
D 37930		0.2		15		
D 37931		0.2		ND		
D 37932		0.2		ND		

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Geochemical Lab Report

REPORT: 133-0482 PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB
P 34051		1.5	345
P 34459		2.0	>10000
P 34469		> 50.0	>10000

NOTES:

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Geochemical Lab Report

REPORT: 122-0572 PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB	NOTES
R 37071		ND	ND	Felsic horizon on N side of Blk Cn. River opposite Howard Mine
R 37072		3	ND	
R 37073		2	ND	
R 37074		5	ND	
R 37075		6	ND	
R 37076		ND	ND	
R 37077		7	ND	
R 37078		2	ND	
R 37079		3	ND	
R 37080		ND	ND	
R 37081		ND	ND	
R 37082		12	ND	
R 37083		ND	ND	
R 37084		ND	ND	
R 37085		360	200	(Rusty felsic outcrop alg Hand Trail)
R 37086		6	ND	SW side of River, N alg trail from Howard Mine
R 37087		3	ND	
R 37088		3	ND	
R 37089		26	ND	Near mouth of gully just W of lower adit
R 37090		6	5	
R 37091		12	ND	Entrance to lower adit
R 37092		ND	ND	E-W ridge above Howard Mine
R 37093		ND	ND	
R 37094		2	ND	
R 37095		ND	ND	
R 37096		26	ND	S of Howard Mine alg trail
R 37097		ND	ND	
R 37098		5	ND	
R 37099		ND	ND	
R 37100		29	ND	

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NOTE:
Yellow=Dacitic to rhyolitic flows and tuffs and quartz porphyry
Green=Andesitic to dacitic flows and tuffs
Blue=Black schist lens
Orange=Vein
ωω =Fault or broken rock zone
ΔΔΔ =Breccia
Scale: 1"=10'

(All assays in ppm unless otherwise noted)

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DRILL LOG

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HOLE NO. BH-1
PROPERTY Castle (Bland Hill)
COLLAR ELEV. 2680
ATTITUDE 80°, N85°E
COORD. 34°12'36"N 112°11'30"W
DEPTH 1000' TYPE DDH
START 3/25/81 STOP 4/9/81
LOGGED BY IHL

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
2675	5	0	-	-		0-10: Core lost													
2665	15	50 90 95	H	30		10-73: Coarse, strongly banded quartz porphyry, white or rust colored bands alternating with green bands. Quartz phenocrysts flattened along foliation plane, Chlorite disseminated in fine-grained matrix.													
2656	25	100 100	M	30								0	-	-	-	-	-	-	-
2646	35	90 100	M	30															
2636	45	100 90	M	25		46-48: Calcite-quartz veins, 1-3" thick, with minor disseminated pyrite in wall rock.						1	1/0	1/0	70	<5	30	<.02	<.2

NOTES:

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2626	55	90	M	30										0	-	-	-	-	-	-	-
		100																			
2616	65	50	L	25																	
		100																			
		100				67-69: Quartz-pyrite veins. Minor associated sericite alteration in veins.								2	0/1	1/0	5	<5	20	<.02	<.2
2607	75	100	M	25										0	-	-	-	-	-	-	-
		95				73-79: Dark green, fine-grained andesite with thin bands of calcite parallel to foliation. Disseminated and stringer pyrite for a few feet below the contact.								1-2	1/2	1/0	40	<5	75	<.02	<.2
														0	-	-	-	-	-	-	-
2597	85	85	H	25		79-84: Quartz-porphyry with smaller but more numerous phenocrysts than in 10-73. Fine-grained chlorite-sericite matrix. Pyrite occurs mostly as stringers parallel to foliation.								1	1/5	1/0	30	<5	25	<.02	<.2
		85				84-93: Strongly fractured or brecciated, fine-grained chloritic rock, probably andesite. Fracture controlled sericite and argillite alteration.								0	-	-	-	-	-	-	-
		100																			
2587	95	100	M	25		93-102: Fine grained, chloritic andesite. Fine-grained pyrite in lenses parallel to foliation and coarser pyrite in quartz-calcite stringers. Thin coating of Mg-chlorite on fractures.								1-2	1/0	1/0	40	<5	50	<.02	<.2
		100																			

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2577	105	90, 100, 90	M	25		102-106: Quartz porphyry, like 79-84. 106-110: Coarse, brecciated quartz porphyry. Structurally controlled bleaching and sericite.						1-2	1/5	1/0	40	<5	15	<.02	<.2
												0	-	-	-	-	-	-	-
2567	115	100, 90	M	25		110-120: Stratigraphically complex section of interbedded coarse and fine grained quartz porphyry, banded quartz-chlorite rock, and fine grained chloritized tuff. Some layers rich in fine grained pyrite and a few quartz stringers contain coarse pyrite.						1-2	1/5	1/0	65	<5	45	<.02	<.2
2558	125	95, 100	L	25		120-151: Quartz porphyry with mostly small quartz phenocrysts in a banded, chloritic, fine grained matrix. Pyrite is both disseminated and in stringers. 124: One foot section of intense quartz veining.													
2548	135	90, 100	L	25								<1	1/1	1/0	-	-	-	-	-
2538	145		M	25		141: 1 foot thick quartz vein. 145-149: Zone of bleaching and quartz veining.													

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/YN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
		100				149-151: Zone with coarse quartz phenocrysts and coarse grained pyrite.								2-3	0/1	1/0	10	5	40	.02	.2
2528	155	100	L	25		151-398: Fine to medium grained andesite. Layering sometimes present. Matrix pervasively altered by chlorite. A few quartz stringers. Some layers in top 50 feet contain quartz phenocrysts.															
						161: One foot section of coarse quartz porphyry.															
2518	165	90	L	25										<1	1/0	1/0	-	-	-	-	-
2509	175	100	M	25																	
2499	185	100	L	25		184-200: Coarse pyrite in quartz stringers. Thin coating of Mg-chlorite on fractures.															
2489	195	100	M	25										1-3	1/0	1/0	20	<5	50	<.02	<.2
														1-2	1/0	1/0	25	<5	45	<.02	<.2

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2479	205	95	M	25																			
2469	215	95	L	25										<1	1/0	1/0		-	-	-	-	-	
2460	225	100	L	25		220: Several quartz-pyrite-epidote veins parallel to foliation								1-3	5/1	1/0		20	<5	50	<.02	<.2	
2450	235	100	L	25		230: Calcite-pyrite vein, subparallel to foliation.								<1	1/0	1/0		-	-	-	-	-	
2440	245	100	M	25																			
		100																					

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
2430	255	95	L	25																			
2420	265	100	L	25																			
						269: Quartz-calcite vein.																	
2411	275	95	L	25										<1	1/0	1/0		-	-	-	-	-	
						274: 2" vein of brecciated quartz in calcite																	
					T.S.	280: Calcite-quartz vein																	
2401	285	100	M	25		284: Quartz-calcite vein, calcite after quartz.																	
						289: One foot thick quartz-calcite vein with associated Mg-chlorite alteration in wall rock.																	
2391	295	100	L	25																			

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
2381	305	100	M	25																			
		95												<1	1/0	1/0		-	-	-	-	-	
2372	315		L	25		318: Quartz-calcite vein																	
		100												1-3	10/1	50/1		100	<5	55	<.02	<.2	
2362	325		L	25																			
		95																					
2352	335		M	25										<1	1/0	1/0		-	-	-	-	-	
		90				342-343: Two quartz-calcite veins																	
2342	345		L	25										2	1/1	1/0		10	<5	55	<.02	<.2	

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2333	355	100 / 90	M	25		354: Quartz-calcite vein with Mg-chlorite alteration in the wall rock.															
2323	365	100	M	25		364: Quartz-calcite vein with Mg-chlorite alteration in the wall rock.								<1	1/0	1/0	-	-	-	-	-
2313	375	95	L	30		372-373: Felsic dyke. Layered, strongly seticitized, with minor, disseminated pyrite.															
2303	385	85	L	30										1-2	1/0	1/0	45	<5	50	<.02	<.2
2294	395	90	M	30		394: Quartz-calcite vein with clay alteration in wall rock. 398-400: Quartz porphyry with banded white matrix of cherty rock and strongly sericitized fine grained rock.								<1	1/1	1/0	-	-	-	-	-

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HOLE NO. BH-1
PROPERTY Castle (Bland Hill)
COLLAR ELEV. 2680'
ATTITUDE 80°, N85°E
COORD. 34°12'36"N 112°22'40"W
DEPTH 1000' TYPE DDH
START 3/25/81 STOP 4/9/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP	ASSAYS Cu	Pb	Zn	Au	Ag
2284	405	100, 95	M	30		400-439: Andesitic(?) tuff. Fine grained, banded with a weakly chloritized and sericitized matrix. A few quartz clasts. Rock gets increasingly felsic with depth.								1-3	1/2	50/1	315	<5	115	<.02	<.2
2274	415	95	M	30																	
2265	425	100, 100	M	30		424: Quartz vein, ~2" thick 426: Same.								<1	1/0	1/0	-	-	-	-	-
2255	435	100, 95, 100	H	30		439-441: Strongly sericitized quartz porphyry.															
2245	445	90, 100	M	30		441-454: Like more felsic variety of 400-439.								1-2	1/1	1/0	2200	<5	95	<.02	<.2
														<1	1/0	1/0	-	-	-	-	-

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2236	455	95	H	30		454-459: Layered, felsic tuff-breccia with clasts of chert or silic volcanic rock.																	
		95																					
		90				459-461: Fault gouge																	
2226	465	95	H	30		461-467: Massive, fine grained, felsic sericitized tuff with poorly developed layering. A few quartz phenocrysts or clasts.																	
		95				467-474: Like 441-454.																	
						468: Quartz vein, 1-2" thick.																	
2216	475	100	M	30		474-482: Like 461-467.								<1	1/0	1/0		-	-	-	-	-	
		100																					
						480: One foot section of quartz vein with minor associated chlorite alteration.																	
2207	485	100	M	30		482-542: Like 441-454 but first six feet interbedded with felsic rock.																	
		100																					
2197	495	100	M	25																			
		100				497-498: Felsic layer.																	

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2187	505	100	H	30		500-501: Felsic layer.																	
						502-503: Felsic layer.																	
		100																					
2177	515	100	H	30																			
		85				514: Quartz vein, ½ foot thick																	
		100				516: Quartz vein, 1 inch thick																	
		100				519-520: Breccia zone with thin quartz veins.								<1	1/0	1/0		-	-	-	-	-	
2168	525	80	M	30																			
		100																					
2158	535	100	M	30																			
		100				542-552: Like 461-467.																	
2148	545		H	30																			
		100																					

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HOLE NO. BH-1
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2139	555	100	M	35		552-595: Like 441-454.																	
		95																					
2129	565	85	H	35		561: Minor Cu oxide								<1	1/0	1/0		-	-	-	-	-	
						569-572: 1-2" wide quartz veins crosscutting foliation and parallel to axis of core. Minor disseminated pyrite in vein.																	
2119	575	100	M	35		574: Quartz vein, 1-2" wide, crosscutting foliation.																	
		100																					
2110	585	100	M	30		582: Quartz-pyrite vein, 1/10" wide, subparallel to foliation.								1-3	5/1	1/0		130	<5	45	<.02	<.2	
		100			TS																		
2100	595	95	M	35		594: Quartz vein, 3" wide, subparallel to foliation.								<1	1/0	1/0		-	-	-	-	-	
						598-608: Felsic fragmental volcanic with quartz clasts in sericitized matrix with some graded bedding.																	

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2090	605	90, 85	H	30																			
2081	615	95, 100	M	30		608-635: Quartz porphyry. Small quartz phenocrysts in a fine grained and locally chloritized matrix. Layering locally present.								<1	1/0	1/0		-	-	-	-	-	
2071	625	100	M	30		618-620: 2 foot section of quartz vein. 624: Quartz vein, 1" wide, parallel to foliation.																	
2061	635	100, 90	M	30		635-667: Interbedded feldspar porphyry and layered, chloritized tuff. Probably andesitic in composition. Strong pyrite mineralization in top foot of section.								2-3	1/0	1/0		95	<5	35	<.02	<.2	
2052	645	100	M	30										<1	1/0	1/0		-	-	-	-	-	

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2042	655	85, 90	H	35	TS	654-664: Numerous pyrite stringers parallel to foliation.								<1	1/0	1/0	-	-	-	-	-
2032	665	95, 100	H	30		667-702: Quartz porphyry with small quartz phenocryst in a layered, fine grained, sericitic matrix								1-3	1/10	1/0	1550	<5	120	.16	1.8
2023	675	100, 100	M	30		673-675: Graded felsic tuff with coarse quartz-rich layers interbedded with chloritized tuff. Increased pyrite content.															
2013	685	100, 100	H	30		680-682: Quartz veins, 1-2" wide, crosscutting foliation.								<1	1/0	1/0	-	-	-	-	-
2004	695	100	H	30		694: Quartz vein, 2" wide															

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Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1994	705	100, 100, 100	M	30		702-712: Layered, andesitic(?) tuff with graded bedding and a chloritized matrix. Minor interbedded quartz porphyry.																	
1984	715	90, 90	M	30		712-734: Quartz porphyry with small phenocrysts. Grades with increasing depth into a coarse, felsic fragmental with large, angular clasts of quartz, chert, or divitrified glass and a layered, fine grained matrix. Density, but not size, of quartz fragments decreases near bottom of section.								<1	1/0	1/0		-	-	-	-	-	
1975	725	95, 90	M	35	TS																		
1965	735	95	M	35		734-766: Layered fine grained, andesitic(?) tuff with a chloritized, sericitized matrix. Occasional layers with coarse quartz crystals.																	
1956	745	100	L	35	TS	735: Quartz vein, 4" wide 740: Quartz vein, 2: wide																	

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA

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HOLE NO. BH-1
PROPERTY Castle (Bland Hill)
COLLAR ELEV. 2680'
ATTITUDE 80°, N85°E
COORD. 34°12'36"N 112°11'30"W
DEPTH 1000' TYPE DDH
START 3/25/81 STOP 4/9/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	FRACTURE DATA Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	ALTERATION Mg-Chl	ALTERATION Ser	ALTERATION Arg	ALTERATION Chl	SULFIDES TOT SUL	SULFIDES DISS/VN	SULFIDES PY/CP	ASSAYS Cu	ASSAYS Pb	ASSAYS Zn	ASSAYS Au	ASSAYS Ag
1946	755	100	M	35		758-763: Pyrite occurs as stringers and small disseminated grains.						<1	1/0	1/0	-	-	-	-	-
1937	765	100	M	35								1-3	1/1	1/0	215	<5	135	<.02	<.2
1927	775	100	M	35		766-774: Felsic tuff breccia with clasts of quartz and larger clasts of an older tuff in a fine grained, sericitized matrix. 774-780: Felsic tuff with a few quartz phenocrysts in a banded, sericitic, fine grained matrix.						<1	1/0	1/0	-	-	-	-	-
1917	785	100	M	35		780-783: Quartz-feldspar porphyry with a fine-grained, sericitized matrix. 783-878: Like 766-774, but interbedded with mostly fine grained, sericitized tuff with only a few clasts. Gradational contact between two types.													
1908	795	100	M	35															

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA

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ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1898	805	100	M	30																			
		100																					
		95	M	30		813: Silicified fault-gouge zone.																	
1889	815	90																					
1879	825	80	H	30										<1	1/0	1/0		-	-	-	-	-	
		90																					
1870	835	85	M	25																			
		100																					
		95																					
1860	845	90	H	30																			
		90				848-850: Partially cemented fault-gouge.																	

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA

Page 103

HOLE NO. BH-1
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START 3/25/81 STOP 4/9/81
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Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1851	855	90, 100, 90	H	35		854-857: Partially cemented fault gouge.																	
1841	865	100, 85, 100, 100	H	35		860-862: Fault gouge. 864: Minor Cu oxide staining																	
1832	875	95, 85, 95, 85	H	35		878-894: Like above but with coarser silica clasts which are fractured independently of matrix.								<1	1/0	1/0		-	-	-	-	-	
1822	885	85, 95, 100, 85	H	35		890-894: Fault gouge.																	
1815	895	95, 85	H	35		894-899: Quartz porphyry with medium grained phenocrysts in a layered, weakly chloritized matrix. 897-899: Fault gouge.																	

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA

Page 104

HOLE NO. BH-1
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COLLAR ELEV. 2680'
ATTITUDE 80°N85°E
COORD. 34°12'36"N 112°11'30"W
DEPTH 1000' TYPE DDH
START 3/25/81 STOP 4/9/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1803	905	100	H	35		899-913: Like 878-894 but with a weakly chloritic matrix																	
		85																					
		100																					
						809-913: Core lost, fault zone.																	
1793	915	15	H	30		913-920: Quartz porphyry with coarse clasts of quartz or chert in a chloritic matrix.																	
		75																					
		90				915-917: Partially cemented fault gouge.																	
		75																					
		90																					
1784	925	85	M	35		920-925: Quartz porphyry with a few small quartz phenocrysts and a few larger clasts of quartz, chert or shattered vein material in a fine-grained, tuffaceous matrix. Chlorite mostly in fractures.								0	-	-		-	-	-	-	-	
		90				931: Quartz vein, 2" wide.																	
1774	935	100	M	35																			
1765	945	100	M	30																			

NOTES:

THE SUPERIOR OIL COMPANY
Minerals Division

DRILL LOG

HENRY E. CORDES
MAYER, ARIZONA

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DEPTH 1000' TYPE DDH
START 3/25/81 STOP 4/9/81
LOGGED BY JHL

Scale: 1"=10'

ELEV.	FOOTAGE	% REC.	FRACTURE DATA Density	Angle to Folia.	GRAPHIC LOG	DESCRIPTION AND REMARKS	ALTERATION Qtz	Mg-Chl	Ser	Arg	Chl			SULFIDES TOT SUL	DISS/VN	PY/CP		ASSAYS Cu	Pb	Zn	Au	Ag	
1755	955	100	M	30																			
		100																					
1745	965	100	H	35										0	-	-		-	-	-	-	-	
		100				967: Cemented fault gouge.																	
1736	975	100	H	30																			
		100				975: Fault gouge.																	
		100																					
1726	985	95	M	30																			
		95				985-987: Medium grained, chloritic andesite with pyrite stringers.								2	1/1	1/0		<5	<5	40	<.02	<.2	
						987-1000: Like 920-985.																	
1717	995	100	M	30										0	-	-		-	-	-	-	-	
		100																					
						1000: End of hole.																	

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

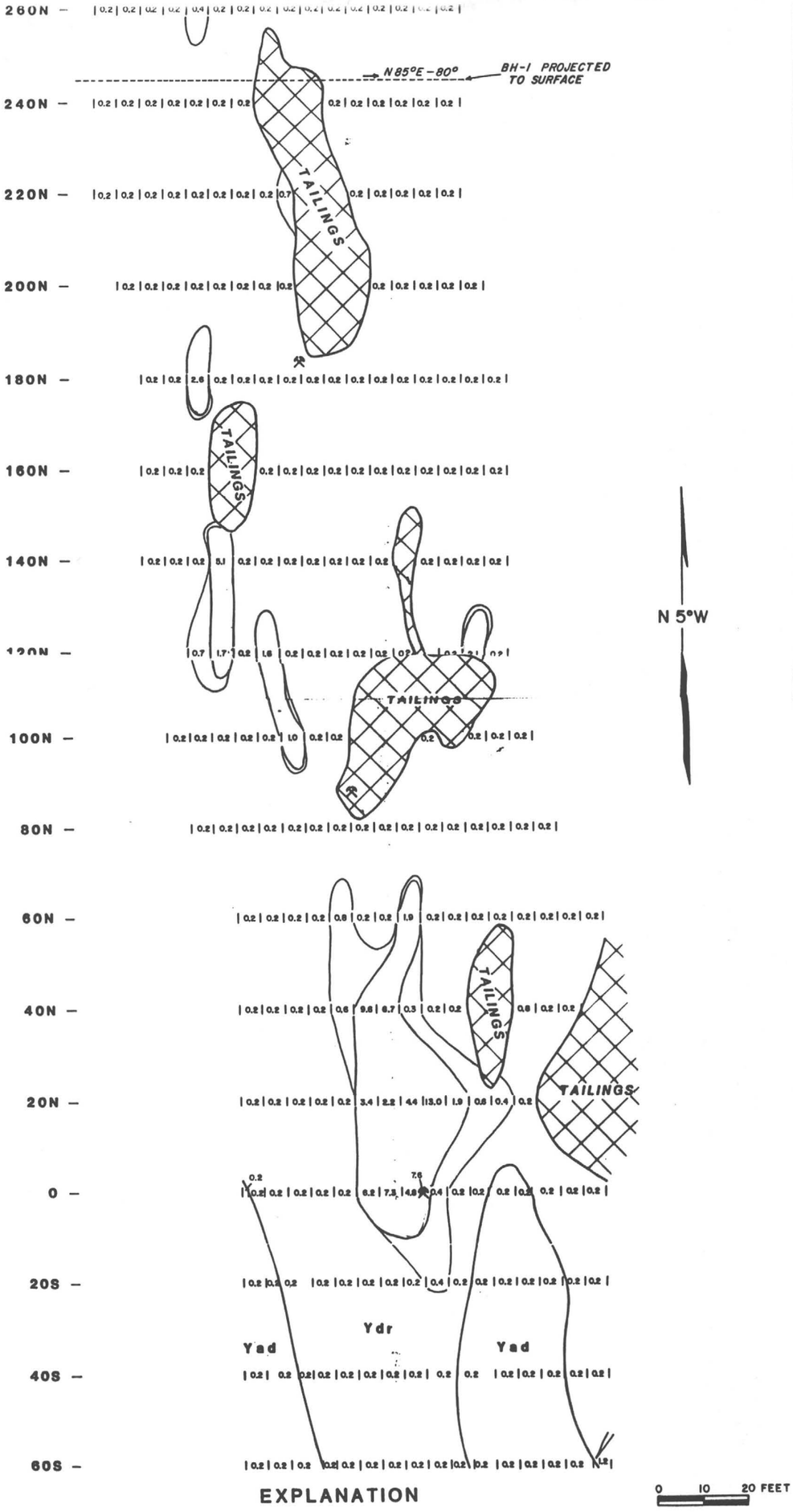
REPORT: 122-0127

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB	As PPM	Sb PPM	Ag/Ag	NOTES
R 1-20S-0-5E		0.4	245	260	2	1.6	
R 1-20S-5-10.5E		0.2	440	> 1000	21	~~0145~~	
R 1-20S-10S-15E		0.2	5	200	6	~~40~~	
R 1-20S-15-20E		0.2	ND	50	6	—	
R 1-20S-20-25E		0.2	ND	33	4	—	
R 1-20S-25-31E		0.2	ND	32	5	—	
R 1-20S-31-35E		0.2	ND	21	6	—	
R 1-20S-35-40E		0.2	ND	23	6	—	
R 1-20S-0-5W		0.2	ND	210	7	—	
R 1-20S-5-10W		0.2	ND	58	4	—	
R 1-20S-10-15W		0.2	ND	81	6	—	
R 1-20S-15-20W		0.2	ND	13	13	—	
R 1-20S-20-25W		0.2	ND	23	10		
R 1-20S-25-32W		0.2	5	25	8	~~40~~	
R 1-20S-32-35W		0.2	ND	17	6	—	
R 1-20S-35-40W		0.2	30	7	ND	~~6.7~~	
R 1-40S-0-7E		0.2	ND	66	8	—	
R 1-40S-10-15E		0.2	ND	20	25	—	
R 1-40S-15-20E		0.2	ND	5	14	—	
R 1-40S-20-25E		0.2	ND	12	12	—	
R 1-40S-25-30E		0.2	ND	7	15	—	
R 1-40S-30-35E		0.2	ND	12	4	—	
R 1-40S-35-40E		0.2	ND	2	8	—	
R 1-40S-0-5W		0.2	ND	280	3	—	
R 1-40S-5-10W		0.2	ND	48	5	—	
R 1-40S-10-15W		0.2	ND	18	ND	—	
R 1-40S-15-20W		0.2	ND	190	6	—	
R 1-40S-20-25W		0.2	ND	31	5	—	
R 1-40S-25-28W		0.2	ND	20	11	—	
R 1-40S-28-35W		0.2	ND	13	5	—	

SAMPLE NUMBER	ELEMENT UNITS	As PPM	Au PPB	As PPM	Sb PPM	Ag/Au	NOTES
R 1-40S-35-40W		0.2	ND	9	7	—	
R 1-60S-0-5E		0.2	ND	16	9	—	
R 1-60S-5-8E		0.2	ND	9	9	—	
R 1-60S-8-15E		0.2	ND	13	6	—	
R 1-60S-15-20E		0.2	ND	15	4	—	
R 1-60S-20-25E		0.2	ND	13	8	—	
R 1-60S-25-30E		0.2	ND	5	10	—	
R 1-60S-30-36E		0.2	ND	11	6	—	
R 1-60S-36-40E		1.2	230	45	25	5.2	
R 1-60S-0-5W		0.2	ND	25	4	—	
R 1-60S-5-10W		0.2	ND	105	8	—	
R 1-60S-10-15W		0.2	ND	260	6	—	
R 1-60S-15-20W		0.2	ND	800	8	—	
R 1-60S-20-225W		0.2	ND	27	8	—	
R 1-60S-225-30W		0.2	ND	13	5	—	
R 1-60S-30-35W		0.2	ND	5	13	—	
R 1-60S-35-40W		0.2	ND	6	7	—	
R 2-0N-0-5E		0.2	5	2	12		
R 2-0N-5-10E		0.2	40	2	3		
R 2-0N-10-15E		0.2	ND	ND	3		
R 2-0N-15-20E		0.2	ND	ND	2		
R 2-0N-20-25E		0.4	ND	ND	5		
R 2-0N-25-30E		0.2	ND	ND	ND		
R 2-0N-30-35E		0.2	5	ND	4		
R 2-0N-35-40E		0.2	ND	ND	3		
R 2-0N-1-5W		0.2	ND	5	8		
R 2-0N-5-10W		0.2	ND	ND	ND		
R 2-0N-10-15W		0.2	ND	ND	6		
R 2-0N-15-20W		0.2	ND	4	5		
R 2-0N-20-25W		0.2	ND	3	ND		

Page 1

MAYER ARIZONA



EXPLANATION

— > 0.2ppm

— ≥ 1.0ppm

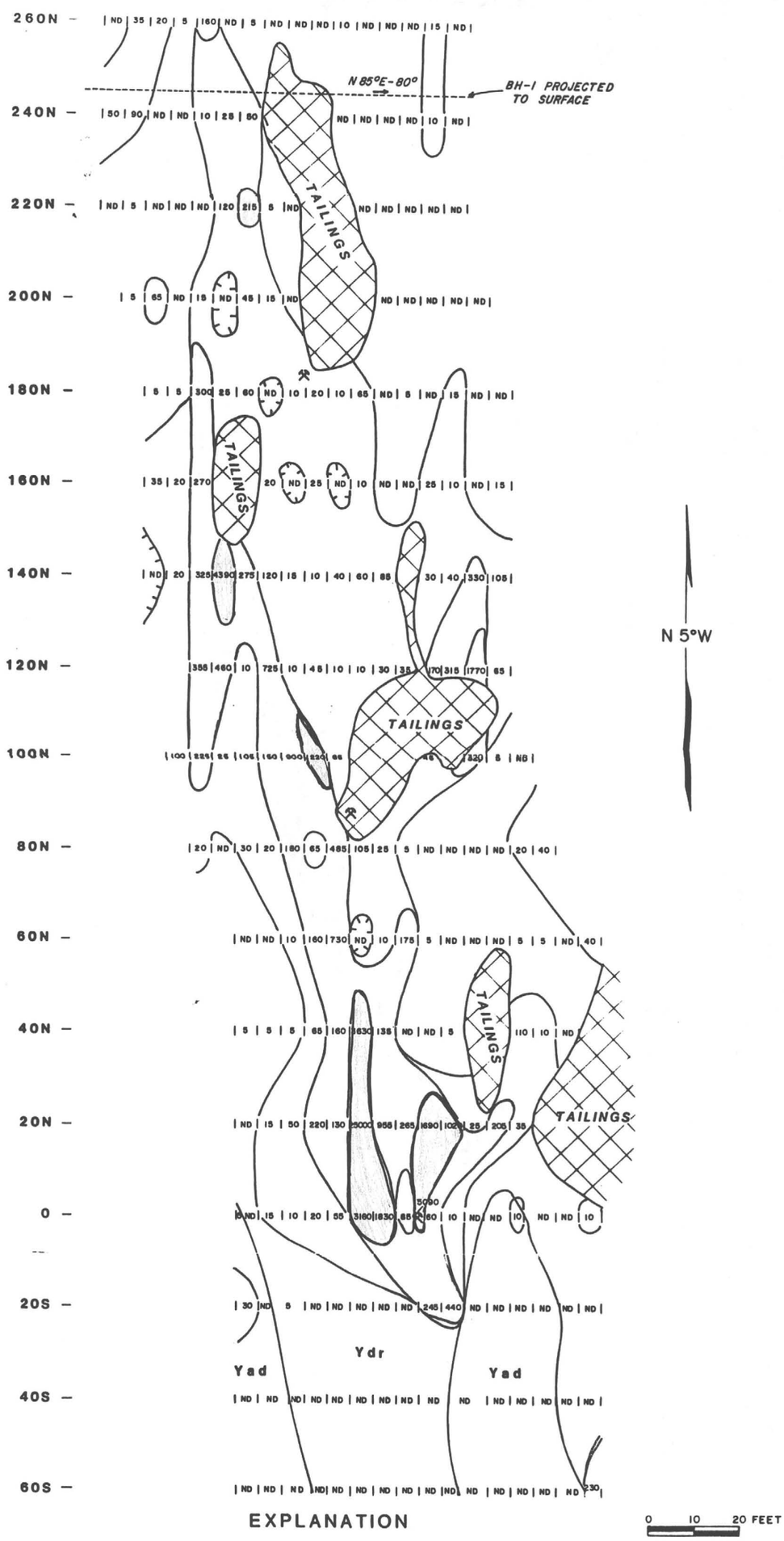
ND No detection (Detection limit is 5ppm)

Ydr Rhyolitic to dacitic flows and tuffs

Yad Dacitic to andesitic flows and tuffs

⚒ Mine working

Fig.4: SILVER CONTENT OF SAMPLES FROM BH-Au#1 (in ppm)



EXPLANATION

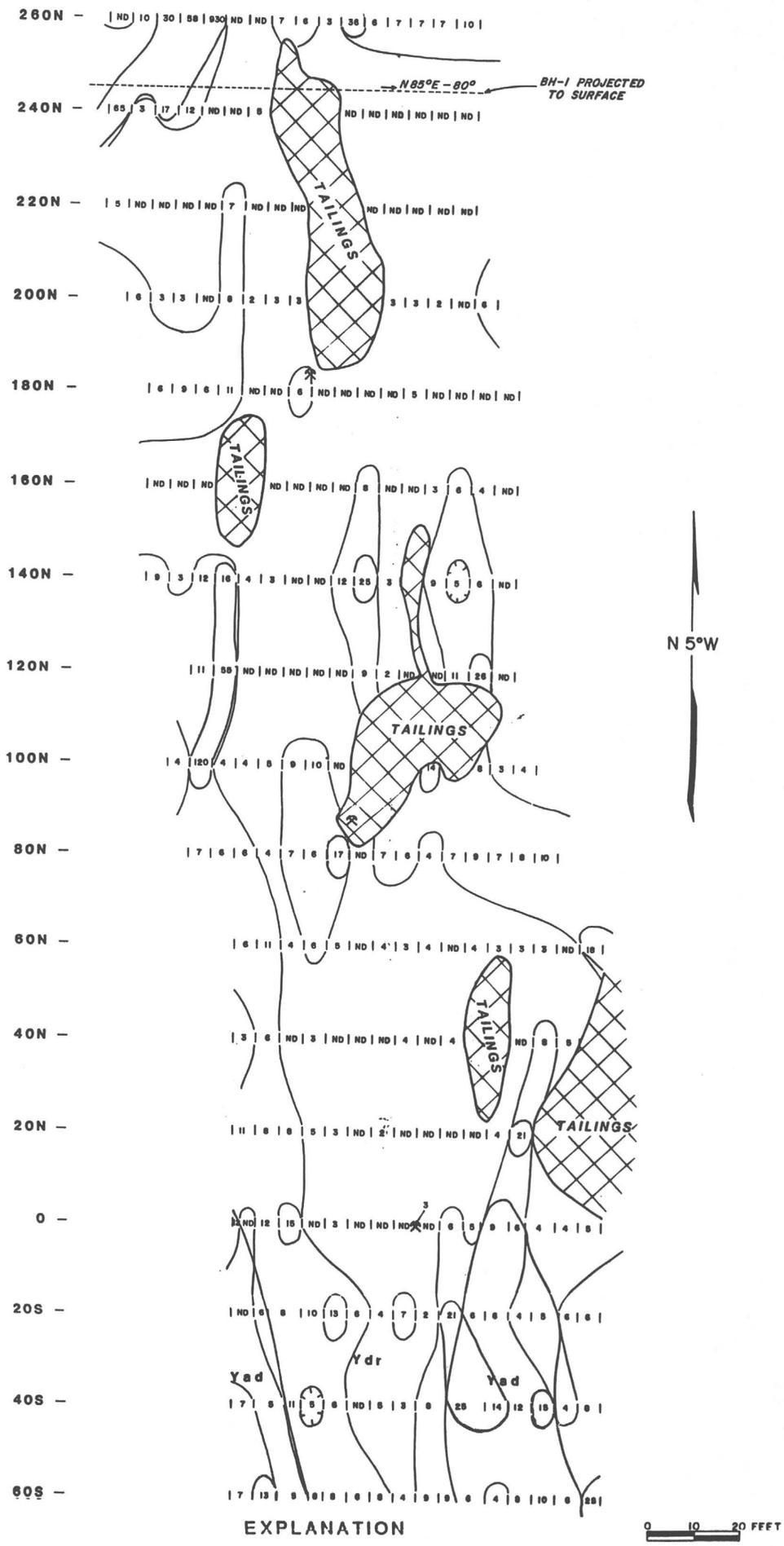
0 10 20 FEET

— ≥ 10ppb
— ≥ 130ppb
— ≥ 1000ppb

ND No detection (Detection limit is 5ppb)
Ydr Rhyolitic to dacitic flows and tuffs
Yad Dacitic to andesitic flows and tuffs
⚒ Mine working

HENRY S. LORDE
MAYER, ARIZONA
Pg. 21

Fig. 1: GOLD CONTENT OF SAMPLES FROM BH-Au# 1 (in ppb)



EXPLANATION

— ≥ 6ppm

— ≥ 13ppm

ND No detection (Detection limit is 5ppm)

Ydr Rhyolitic to dacitic flows and tuffs

Yad Dacitic to andesitic flows and tuffs

Mine working

HENRY E. CORDES
MAYER, ARIZONA

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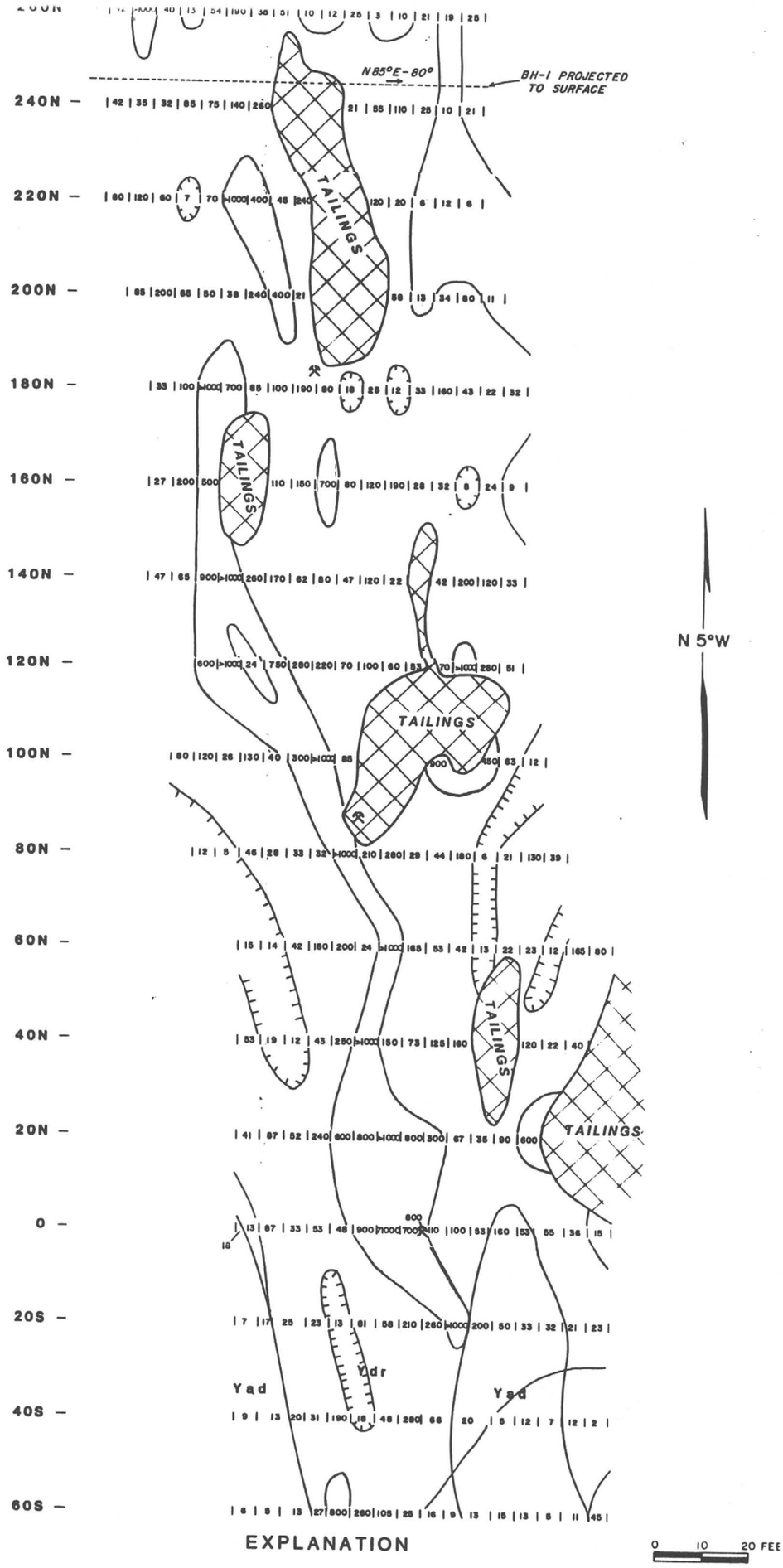
Fig.6: ANTIMONY CONTENT OF ROCKS FROM BH-Au#1 (in ppm)



HENRY E. CORDES
MAYER, ARIZONA

Fig.5: ARSENIC CONTENT OF ROCKS FROM BH-Au1 (in ppm)

BONDAR-CLEGG & COMPANY LTD.
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-352667

Geochemical Lab Report

REPORT: 122-0127
FROM: SUPERIOR OIL COMPANY
SUBMITTED BY: JYCN LADD

DATE: 12-FEB-82 PROJECT: NONE GIVEN

ELEMENT	LOWER DETECTION LIMIT	EXTRACTION	METHOD	SIZE FRACTION	SAMPLE TYPE	SAMPLE PREPARATIONS
As	.1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption	-100	ROCKS	CRUSH,PULVERIZE -100
Au	5 PPB	AQUA REGIA	Fire Assay AA	-100		
As	2 PPM	NITRIC PERCHLOR DIG	Colourimetric	-100		
Sb	2 PPM		X-RAY Fluorescence	-100		

REPORT COPIES TO: BONDAR-CLEGG & CO.
SUPERIOR OIL

INVOICE TO: SUPERIOR OIL

REMARKS: ASSAY OF HIGH Au ON 622-0127

DETECTION LIMITS FOR GOLD
20 gram sample: 5 ppb.
10 gram sample: 10 ppb.
1 gram sample: 100 ppb.

Sample Wt. 20 g. unless otherwise stated.

NOTE:
Check concentration/sample weight ratio for effective detection level.

HENRY E. CORDES
MAYER, ARIZONA

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SUPERIOR OIL

INTER-OFFICE CORRESPONDENCE

DATE May 28, 1981

TO John Ladd

LOCATION Tucson

FROM David Plaza

LOCATION Tucson

SUBJECT BLAND HILL DDH-2

COPIES

Sample		Description
205' (34271)	-	This is an andesite with moderate cataclasis and recrystallization, the laths of plagioclase are more or less oriented in the direction of the movement. Moderate amount of Mg-Fe chlorite, sericite and calcite is usually interstitial to the plagioclase matrix and also in irregular layers or aggregates. Tourmaline is an important accessory. Sulfides are desseminated.
594' (34272)	-	This is a rhyolite with moderate cataclasis and recrystallization; abundant chlorite (Fe-Mg and Mg-Fe) and calcite in layers and aggregates, subordinate sericite, and strong silicification associated with pyrite. Accessory tourmaline. In most cases the chlorite is almost isotropic, that is almost equal in proportions of Fe and Mg, and it shows inclusions (probably zircon) surrounded by pleochroic halos.
610' (34273)	-	Similar to sample #34272, with stronger cataclasis; the chlorite is Fe-Mg type (pennine).
665' (34274)	-	This is probably a rhyolite with moderate cataclasis and strong recrystallization and silicification; minor amount of Mg-Fe chlorite, sericite and calcite.
982' (34275)	-	This is probably an andesite with strong cataclasis and recrystallization; abundant Mg-Fe chlorite and calcite, strong silicification associated with pyrite.
1323' (34276)	-	This is a hornblende diorite with the plagioclase strongly altered to chlorite, calcite and clay. Apatite is an important accessory, minor sphene. Magnetite partly limonitized is disseminated.

HENRY E. CORDES
MAYER, ARIZONA
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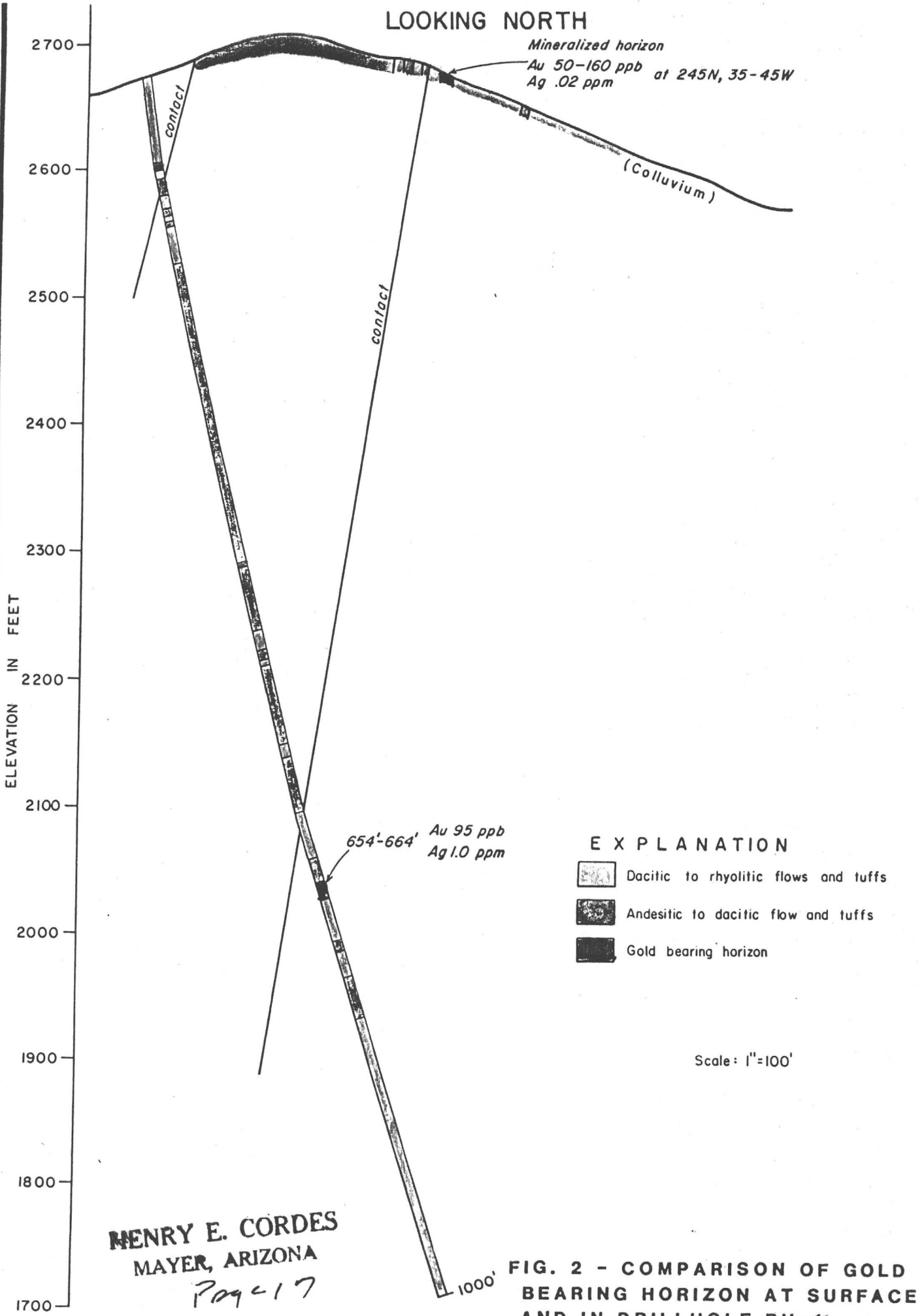
David C. Plaza

DCP/cb

FORM 21 7/80 50M SUPERIOR



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MAYER, ARIZONA
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FIG. 2 - COMPARISON OF GOLD BEARING HORIZON AT SURFACE AND IN DRILLHOLE BH-1