HISTORY:

The history of exploration work on this property has been summarized in detail by Belik (1984) and his report is quoted extensively here.

Copper mineralization was probably first discovered here in the late 1800's when the Arizona Territory was being opened up. The first recorded work was carried out by the Hauxhurst Copper Company in the early 1900's. Surface exploration and the excavation of shallow pits and shafts was reported by the U.S. Bureau of Mines when the property was known as the U.S. Mine.

A report on the property by W.E. Greenwalt in 1912 mentions work on two parallel veins about 250 feet apart. Two shafts, 456 feet deep and 40 feet deep were sunk on the main vein reported to be as much as 100 feet wide. A 100 foot deep shaft was said to have been sunk on a 4 foot wide copper rich zone within a second vein, reported as 30 feet wide.

In a 1914 report by T.C. Alsorf work is reported on four veins or "bands of silicified rock". Most work was carried out on the No. 1 and No. 2 veins (Lower Shaft Zone and Upper Shaft Zone respectively). The No. 1 vein was developed by a 20 foot shaft, a 106 foot shaft and a 60 foot shaft. The principal development on the No. 2 vein was a 486 foot shaft. A cross cut to the west was reportedly driven for a distance of 48 feet at the 250 foot level in this shaft. According to old reports mineralized material was encountered over the length of this cross cut.

The early development work, all probably carried out before 1920 is summarized in a 1958 U.S. Bureau of Mines report as follows:

"The principal development work was performed shortly after the turn of the century and consists of a vertical shaft said to be 500 feet deep with fairly extensive lateral workings (lower shaft), and another vertical shaft said to be 480 feet deep (upper shaft). The deeper or main shaft (No. 1) is collared near the base of the ridge on its southeastern slope and the other shaft is collared on the same side of the ridge at a point 300 feet southerly from the main shaft and about halfway up the slope of the ridge. Both of these shafts are inaccessible and no clear account is available regarding the workings or mineralization disclosed. However, the substantial dump at the lower shaft is evidence of a substantial deposit of low grade gold ore with a small copper content."

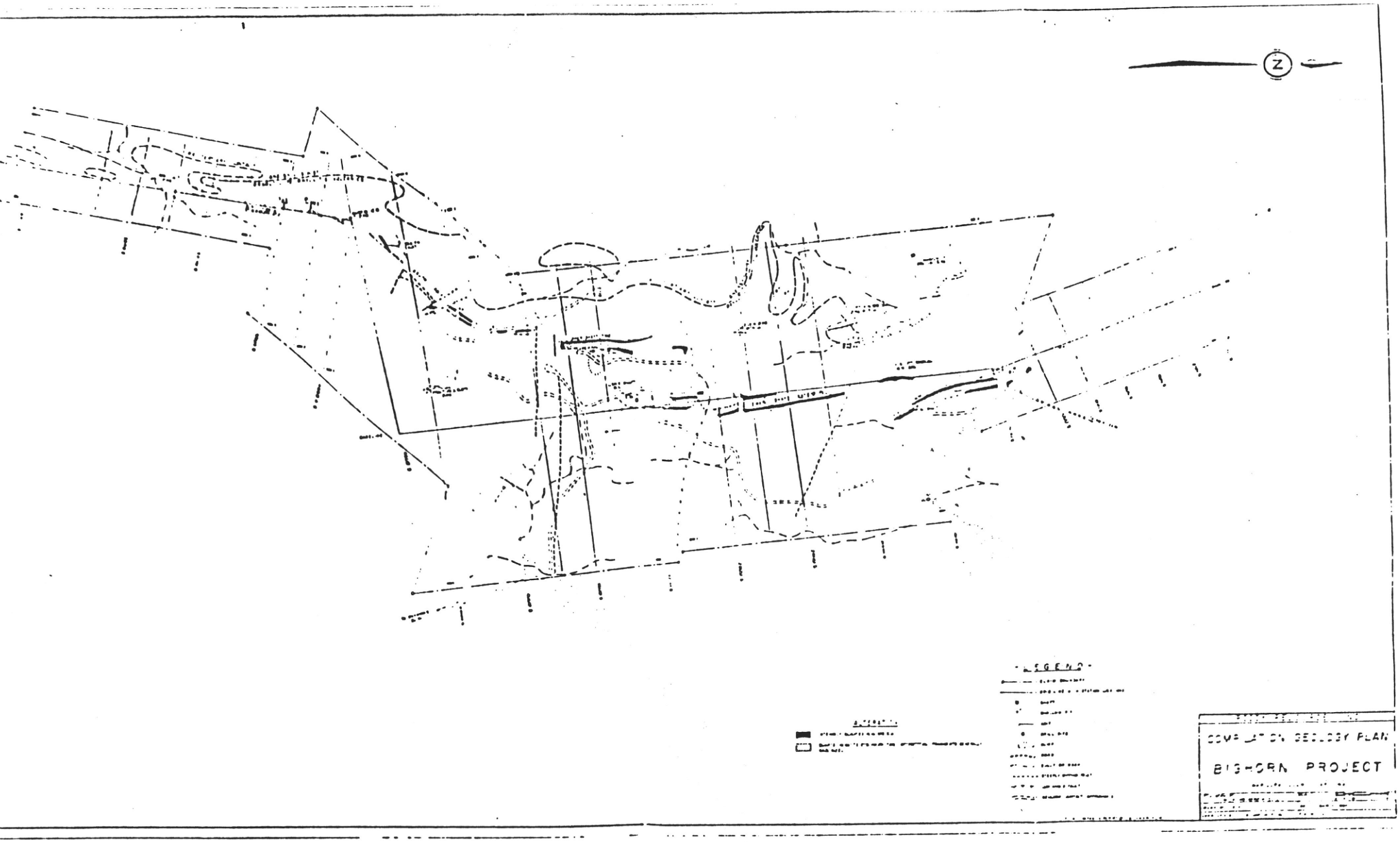
No further work is reported until a local Wickenburg miner acquired a five year lease on the property in 1943. During the term of this lease it is reported that 4500 tons of dump ore was treated and returned an average value of $4.50 (U.S.) per ton (gold at $35.00 U.S. per ounce) and from 0.50 to 0.75% copper per ton.

Between 1952 and 1958 minor exploration was carried out by local miners and in 1961 a total of 133 tons of ore from various dumps was shipped to the Phelps Dodge smelter at Ajo, Arizona. This material reportedly averaged 0.091 oz gold and 2.01% copper per ton. The claims were surveyed and brought to patent in 1966.

Lousisiana Land and Exploration Company purchased the property in 1971 and during the next two years this company carried out a broadly based prospecting, mapping and sampling programme on the subject claims and surrounding property. This company may have performed geophysical surveys and probably drilled the four deep core (?) holes now found on the claims. (see figure 325-3) No records of this work apparently exist however it is believed that this company was testing the prospect with the hope of developing a large tonnage, porphyry copper deposit.

The property was examined by E.D. Black, P. Eng. in 1976 and 1982 who subsequently acquired an option from Lousiiana Land and Exploration Co.

Roddy Resources Inc. entered into an agreement with Mr. Black in late 1983 and carried out a detailed evaluation of the property during November, 1983 and January and February, 1984. This report is based largely on the results of that work.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LEGEND
BIGHORN PROJECT

GEOLOGY:

The property is underlain by a mixed succession of Tertiary volcanic flows and fragmental rocks which unconformably overlie Precambrian metamorphic basement. A linear and perhaps arcuate fracture zone is the locus for the intrusion of younger Tertiary diabase dikes and sills, and an extensive zone of epithermal quartz veining and stockworks. Later faulting has locally disrupted the continuity of the zone of quartz veining.

The oldest rocks found are Precambrian mica schists, quartzites and biotite-epidote gneisses which outcrop at and west of the west boundary of the claims. These metamorphic basement rocks are interpreted to dip shallowly east under the Tertiary cover and perhaps to be down dropped by a series of north-trending normal faults.

Unconformably overlying the Precambrian basement is a mixed sequence of Tertiary volcanic rocks. These consist of pink to white, rhyolitic to dacitic crystal tuffs, green to purple andesitic tuffs and flows, dark green to maroon basaltic tuffs, flows and agglomerate, and dacitic aggromerate, lahar and breccia. These rocks are complexly interfingered as well as folded (?) and faulted, however in general they are thought to dip to the east.

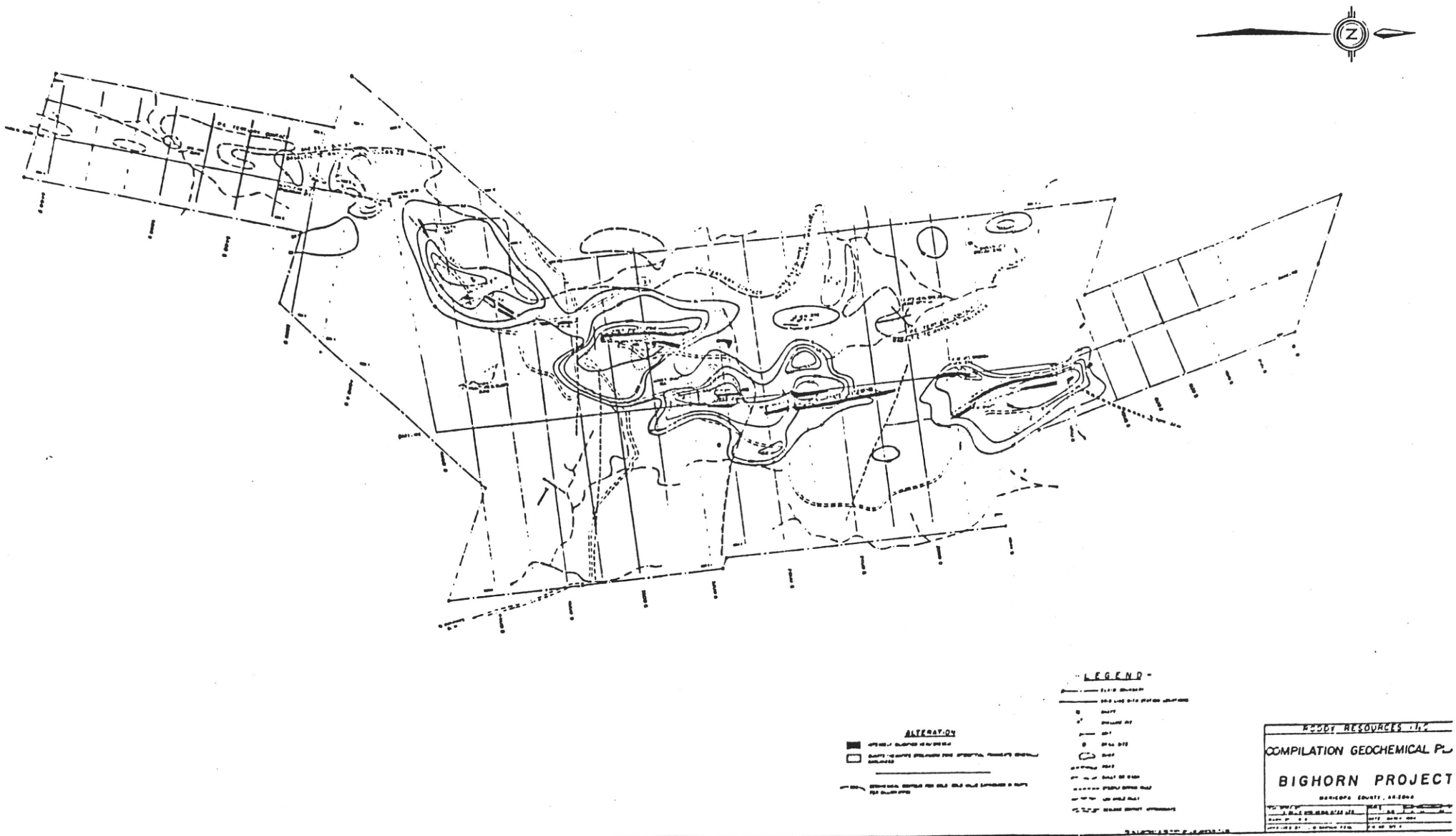
A northerly-trending and possibly arcuate fault and/or fracture zone cuts the Tertiary volcanic package and parallels the Tertiary-Precambrian basement contact. This feature may be part of a much larger circular fracture zone associated with Tertiary caldera development. A number of narrow diabase dikes and sills are spatially related to this fracture zone. They are now largely altered and dislocated by later hydrothermal activity and faulting.

Also associated with this zone of weakness is a distinctive zone of epithermal quartz veins and stockworks. This zone of quartz flooding is about 4500 feet long, up to 130 feet wide and has been locally disrupted and offset by later high angle normal faults and high and low angle thrust faults (see figure 325-3).

MINERALIZATION:

Gold and copper mineralization is associated with the arcuate, north-trending band of epithermal quartz flooding. This area of quartz flooding is essentially tabular in form, stands approximately vertical though locally its walls may dip steeply east or west and has been locally displaced as much as 300 feet by later faulting. It varies from a few feet to as much as 130 feet in width. It has been described by Belik (1984) as follows:

> .....an intensive stockwork of quartz veins and veinlets with intensely silicified vein/breccia-type zones up to 16 feet wide. Less intense stockwork zones locally occur within and peripheral to the main stockwork zones. The host volcanic units typically are strongly kaolinized. The quartz within the stockwork and vein/breccia zones generally is banded, contains abundant drusy cavities and locally has jasperoid fragments and bands. Black to earthy red hematite, jarosite and specular hematite, in amounts up to 20% occur finely impregnated within quartz and are present as veinlets and blebs cutting quartz and wallrock. Calcite is present as a minor constituent in the south but locally reaches amounts up to 5% near the north end of the North Adit Zone (see figure 325-3).
>
> Copper as secondary oxides, carbonates and silicates generally is abundant within the vein/breccia zones (locally 5 - 10% by volume) and present in minor amounts within the stockwork zones. Gold, ranging from 80 ppb to about 19,000 ppb (0.542 oz/ton) occurs both within the stockwork and vein/breccia zones. There is no apparent correlation between the abundance of quartz vein material and higher gold values. ....a number of shafts, pits and adits have investigated various parts of this mineralized system. Most of this work appears to have been directed towards evaluating copper-rich segments."


LEGEND
COMPILATION GEOCHEMICAL P
BIGHORN PROJECT

Belik (1984) carried out a detailed mapping and sampling programme and subdivided the mineralization into 4 zones:

(a) South Adit Zone.
(b) Upper Shaft Zone.
(c) Lower Shaft Zone and Lower Shaft Extension.
(d) North Adit Zone.

A programme of geochemical soil sampling (see figure 325-4) shows that significant gold mineralization is confined to the main zones of quartz veining and stockworks. The results of Belik's sampling as well as check samples taken by the writer are summarized on Figure 325-5.

The South Adit Zone can be discontinuously traced for about 1000 feet and varies from about 15 feet to more than 70 feet wide. It has been developed by several pits and an 80 foot long adit. A 45 foot chip sample along the adit wall averaged 0.068 oz Au/ton. Two other chip samples near the north end of this zone assayed 0.090 oz Au/ton over 15 feet and 0.132 oz Au/ton over 25 feet respectively.

The Upper Shaft Zone can be traced for about 600 feet along strike and varies from 15 to 80 feet in width. It has been developed by a number of pits as well as a 60 foot shaft and a 486 foot shaft. Six chip samples were taken across this zone (see figure 325-5) and the results are as follows:

Sample No.	Width	Au (oz/ton)
1	15'	0.110
2	24'	0.077
3	40'	0.095
4	50'	0.050
5	10'	0.045
6	15'	0.060

Two 25 foot check samples were taken by the writer across the 50 foot section at Belik's No. 4 sample location. Results are as follows:

Sample No.	Width	Au (oz/ton)
JD-5	25'	0.06
JD-6	25'	0.044

Material on the dump of the 486 foot deep shaft is more or less similar to that seen in outcrop on surface. The host rock of some of the material is Precambrian metamorphic rocks, indicating that the mineralization continues below the Precambrian-Tertiary contact. A composite sample collected from this dump by Belik (1984) assayed 0.117 oz Au and 0.13% Cu/ton.

The Lower Shaft Zone and Lower Shaft Extension together can be traced for about 1150 feet and must continue for some distance to the south of the main shaft where it is overburden covered (see figure 325-3). This zone varies from 20 feet to 130 feet wide though it is not possible to sample the widest part because of overburden cover.

It has been developed by a number of pits, a 600 foot shaft, a 20 foot shaft and a 120 foot long adit. The locations of surface chip samples are shown on figure 325-5 and are as follows:

Sample No.	Width	Au (oz/ton)
1	60'	0.045
2	75'	0.133
3	45'	0.108
4	63'	0.038
5	20'	0.084
6	15'	0.015
7	45'	0.020
8	45'	0.022
9	20'	0.034
10	38'	0.024

EXPLORATION POTENTIAL:

An extensive, gold-bearing, epithermal system has been outlined on surface by sampling on the Bighorn property. The system is at least 4500 feet long, as much as 130 feet wide and is known to extend at least in some places to at least 600 feet of depth.

There is an excellent possibility for the delineation of several million tons of gold-bearing material in the 0.05 to 0.10 oz/ton range which might be mined by low cost, bulk mining methods. A detailed drilling programme is certainly warranted to fully test this potential.

RECOMMENDATIONS:

Phase I:

1. Carry out a surface programme of bulldozer trenching and sampling to fully delineate the mineralization on surface.

2. Repair the property access road as well as upgrading and extending the present roads on the claim block.

3. Test the Lower Shaft Zone with inclined reverse circulation drill holes to about 300 feet of depth with 4 set-ups on roughly 100 foot centers - 2 set ups with a fan of 3 holes each and 2 single inclined holes. Total of 8 holes of roughly 500 feet each = 4,000 feet.

Phase II:

Contingent upon the success of Phase I, further drilling should be carried out as follows:

(a)	Lower Shaft Zone - 3 additional set-ups with a fan of 3 holes each - 9 holes	total 4,500 feet
(b)	Upper Shaft Zone - 4 set-ups with a fan of 3 holes each plus a single hole at each end of the zone - 14 holes	total 7,500 feet
(c)	South Adit Zone - 6 holes	total 2,000 feet

(d)	Lower Shaft Extention - 5 holes	total 1,500 feet
(e)	North Adit Zone - 6 holes	total 2,000 feet
	Total Drilling Phase II	17,500 feet

Respectfully submitted:

KERR, DAWSON & ASSOCIATES LTD.,

James M. Dawson, P. Eng.
GEOLOGIST

APPENDIX A

ESTIMATED COST OF RECOMMENDED PROGRAMME:

PROGRAMME COSTS:

Phase I

1.	Surface Trenching and Sampling (includes D-6 Tractor, 2 samplers, geologist supervisor, room and board, assays and travel for 20 day period)	$30,000.00 U.S.
2.	Road repair and construction of drill sites	20,000.00 U.S.
3.	4,000 feet of reverse circulation drilling (include direct drilling cost of $9.00 (U.S) per foot plus supervision, sampling, room and board, transportation, freight, assays and consulting - say $20 (U.S.) per foot all in	80,000.00 U.S.
		130,000.00 U.S.
	Contingency @ 10%	13,000.00
	Total Cost Phase I:	$143,000.00 U.S.

Phase II

	17,500 feet of reverse circulation drilling all in ($20 (U.S.) per foot	350,000.00 U.S.
	Contingency @ ~ 10%	37,000.00
	Total Cost Phase II:	$387,000.00 U.S.

APPENDIX B

ASSAY RESULTS:

Member
Canadian Testing
Association

KAMLOOPS *RESEARCH & ASSAY* LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.
V2C 5P5
PHONE: (604) 372-2784 — TELEX: 048-8320

B.C. LICENSED ASSAYER
GEOCHEMICAL ANALYST
METALLURGISTS

CERTIFICATE OF ASSAY

TO Kerr, Dawson & Associates
206 Nicola Place
310 Nicola St.,
Kamloops, B.C.
V2C 2P5

Certificate No. K 6233

Date March 12, 198

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	Au	Ag
		ozs/ton	ozs/ton
1	3343	.038	.08
2	3344	.03	.06
3	3345	.230	.08
4	3346	.093	.05
5	3347	.06	.04
6	3348	.044	.05

NOTE:
Rejects retained three weeks.
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

APPENDIX C

REFERENCES:

REFERENCES:

Belik, G. (1984): Report on the Bighorn Property, Maricopa County, Arizona, U.S.A.; Private Report to Roddy Resources Inc.

Black, E.D. (1983): Report on the Bighorn Property (U.S. Mine), Maricopa County, Arizona. Private Report to M.P.H. Consulting Inc.

Various files of E.D. Black and Roddy Resources Inc. relating to past history and development of the Bighorn Property.

Belik, G. (1984): Personal Communication

Taylor, D. (1984): Personal Communication

Preliminary Economic Evaluation

- of the -

Bighorn Gold Prospect

- for -

Roddy Resources Inc.

2500 Three Bentall Centre

595 Burrard Street

Vancouver, B. C.

Prepared by:

G. Belik and Associates Ltd.

664 Sunvalley Drive

Kamloops, B. C.

G. D. Belik, M. Sc.

March 6, 1985

Summary

The Bighorn Property, situated in Maricopa County, northwestern Arizona, contains four zones of significant epithermal-type gold mineralization. Based on the results of surface and underground sampling and drilling carried out to date, mineable reserves of the Lower Shaft and Upper Shaft Zones, calculated to a maximum depth of 350 feet, are placed at 565,000 tons probable, grading approximately 0.09 oz gold per ton. These reserves are amenable to open pit mining at an ore: waste ratio of 1:3 to 1:3.5.

There is a good potential for developing additional reserves at depth in the Lower Shaft Zone, along the extension of the Lower Shaft Zone to the north, and within two other zones on the property referred to as the North Adit and South Adit Zones. Although it is premature to estimate possible additional reserves, these target areas could host another 0.5 to 1.5 million tons.

Based on a open pit, 150,000 t.p.y., heap leach-type operation it is estimated that gold can be produced from the Lower Shaft and Upper Shaft Zones for about $87 U.S. per oz. At a gold price of $250 U.S.,

assuming reserves of 565,000 tons at an average grade of 0.09 oz/ton and a recovery rate of 70% (indicated from results of preliminary column leach tests), a 150,000 t.p.y. operation would generate an annual profit, before royalties of $1,566,000 U.S. for a period of 3.8 years. Total net profit after royalties and payback of capitalization costs (estimated at 1.3 million) would be 4.26 million with an average annual rate of return on investment capital of 52.05%. Payback of capitalization costs would be achieved in 0.86 years.

The 3.8 year mine life, operating at a rate of 150,000 t.p.y., is based on probable reserves developed on the property to date. If the potential for additional reserves is realized the operating life of the mine could be extended by an additional 3 - 10 years.

The preliminary economic evaluation outlined above suggests that Bighorn Property offers an excellent opportunity for developing a mine. However, before making a final production commitment, it is recommended that further work be carried out including: a) a pilot heap leach test to verify recoveries b) fill-in drilling to establish with certainty the grade/tonnage estimates

of the Lower and Upper Shaft Zones c) a topographic and drill hole survey to assist in the final feasibility studies and d) final feasibility studies to provide a more detailed economic evaluation and to determine optimum pit designs, access route, waste disposal sites etc. The estimated cost of this program is $300,000 U.S., which is included in the estimated $1.3 million capitalization costs to bring the property into production.

Introduction

This report, which is written at the request of the Directors of Roddy Resources Inc., provides a preliminary economic evaluation of the Bighorn Property based on the results of exploration work carried out to date.

Salient Features and Exploration History

The Bighorn Property, consisting of ten patented and 12 unpatented mineral claims, is situated in rolling, foothills-type terrain, within a desert region of northwestern Arizona. The property can be reached via about 20 miles of back roads from either Wickenburg, on Highway 93, or Aguila, on Highway 60.

The claim area straddles a major northerly-trending fault which separates a Tertiary volcanic sequence on the east and Precambrian schists and gneisses to the west. Within the area of the claims, in close proximity to the Tertiary/Precambrian fault contact, significant epithermal-type gold $\pm$ copper mineralization occurs within steeply dipping, tabular quartz stockwork

and vein/breccia zones up to 130 feet wide. Post ore faulting has segmented the mineralized structure into four en-echelon zones which have a combined strike length exceeding 3200 feet.

Early development work, which includes several shafts, adits and shallow pits, was carried out by the Hauxhurst Copper Company between 1908 and 1920. The main workings consist of two vertical shafts, 600 ft. and 486 ft. deep. The deeper, or Lower Shaft (No. 1) has fairly extensive lateral workings on the 150 and 250 levels. The Upper Shaft (No. 2) has about 200 ft. of lateral development on the 250 level and 300 ft. on the 350 level.

There are no records of any substantial production. About 4,500 tons of dump ore reportedly was milled in 1943 which yielded $4.50 U.S. gold per ton ($35 gold) and 0.5 to 0.75% copper. In 1961, three shipments of dump and surface ore, totalling 133 tons, were treated by the Superior and Hayden Smelters in Arizona. These shipments averaged 0.091 oz gold per ton and 2.01% copper.

Since acquiring the property in January, 1983, Roddy Resources Inc. has carried out a comprehensive

exploration program consisting of detailed surface sampling and mapping, reverse-circulation drilling (9840 Ft. in 35 holes), underground mapping and sampling and bulk sampling for metallurgical testing.

Mineralization

Within the area of the claims, significant gold mineralization is confined to complex quartz vein zones characterized by an intense stockwork of quartz veins and veinlets, up to 130 feet wide, with intensely silicified vein/breccia-type zones up to 16 feet wide. Less intense stockwork zones locally occur within and peripheral to the main stockwork zones. The host volcanic units typically are kaolinized and locally chloritized.

Quartz within the stockwork and vein/breccia zones generally is banded, contains abundant drusy cavities and locally contains jasperoid-type fragments and bands. Black specular hematite and dark, earthy red hematite, in amounts up to 30%, occur finely impregnated within quartz and wallrock and within veinlets and blebs cutting quartz and wallrock.

Fine native gold, ranging from less than .01 to more than 1.0 oz/ton occurs both within stockwork and vein/breccia zones. There is no apparent correlation between the abundance of quartz vein material and higher gold values.

Copper as secondary oxides, carbonates and silicates locally is abundant within the vein/breccia zones and generally present in minor amounts within the stockwork zones. The average copper content is estimated to be between 0.15 and 0.3 percent.

Reserve Estimates

Based on the results of surface and underground sampling and drilling carried out to date, reserve estimates for the four main zones are as follows:

Lower Shaft Zone

Probable: 365,000 tons
Grade: 0.092 (oz/ton Au)
Open Pitable: Yes
Ore: Waste: 1:3.5

Possible: additional 200,000 - 500,000
Grade: insufficient data

Open Pitable: Yes
Ore: Waste: insufficient data

-additional possible reserves are based on the results of hole #19 which intersected 100 ft. (true width) averaging 0.04 oz gold with a 30 ft. core grading .092 oz gold; this intersection is situated about 200 ft. north of the area included in the probable reserve category; if a continuity with the mineralization to the south can be established the Lower Shaft reserves could be increased by 200,000 - 500,000 tons.

Upper Shaft Zone

Probable: 200,000
Grade: .085
Open Pitable: Yes
Ore: Waste: 1:2.5

North Adit Zone

Possible: 300,000 - 700,000
Grade: .03 - .04
Open Pitable: Yes
Ore: Waste: insufficient data

-the north adit zone was tested by a series of 5 holes spaced at 200 ft. intervals; although the grades encountered are lower than in the Upper and Lower Shaft Zones, there is a potential for higher grade mineralization at depth.

South Adit Zone

Possible: insufficient data

-although impressive assays locally were obtained from surface sampling (up to 0.132 across 25 feet) drilling from the west failed to intersect the structure; it appears probable that the zone flattens or is faulted at depth to the east; drilling from the east would have to be carried out to determine if there is a potential for developing reserves in this area.

In addition to the above probable and possible reserves there is a potential for higher grade ore at depth in the Lower Shaft Zone which could be mined underground. This zone contains a high grade core which strengthens with depth. At the north end of the 250 ft. level drift (cutoff used for the open pit reserve calculations) an 80 ft. section averaged 0.3 oz gold across a true of 20 ft. This high grade segment is open to the north and at depth.

Column Leach Tests

Two composite, bulk samples, representative of higher grade and low grade mineralization, were collected from the Lower Shaft Zone for preliminary column leach tests.

Columns utilized were 5 ft. high with a capacity for holding about 100 lbs. of material.

Initial testwork was carried out on material crushed to minus 3/4". Crushed material was placed in the columns and then leached with a cyanide solution, raised to a PH of 10.5 - 11.0, for a period of 7 days. The pregnant solution was passed through a carbon recovery system to extract the gold. At regular intervals, the pregnant solution was assayed in order to determine the effective recovery period.

The initial testwork produced a gold recovery of about 50% for both samples, in less than 72 hrs., with a cyanide consumption of 2 - 2.5 lbs./ton and a lime consumption of 5 lbs./ton.

To determine if the recovery rate could be improved a size fraction analysis was carried out on the leached residue from the higher grade sample. From this it was determined that most of the gold was being leached from the minus 1/4" material and most of the gold was being retained by the plus 1/4" material. Based on these results a second test was carried out on the high grade material crushed to minus 1/4". This resulted in a 70%

gold recovery within an effective leach period of less than 72 hrs. Although cyanide consumption was higher (3.4 lbs.) the lime consumption remained the same.

From the results of the testwork carried out it appears that the Bighorn mineralization is suitable for a heap leach-type operation with the optimum recovery achieved on material crushed to minus 1/4".

Preliminary Economic Evaluation

The Bighorn Property is viewed as having an excellent potential for the development of an economically viable open pit, heap leach-type operation. Table I illustrates the projected annual net profit, at various metal prices, for a 150,000 t.p.y. operation mining ore from the Upper and Lower Shaft Zones at an average grade of 0.09 oz gold and 0.15 oz silver per ton. The calculations are based on a gold recovery of 70%, a silver recovery of 25% and operating cost of $5.50 per ton (2.25 mining and 3.25 crushing and leaching).

Table I: Projected Annual Net Profit (before royalties) at various metal prices (U.S. funds)

Price ($)		Value Per Ton ($)		Total Value Per Ton ($)	Net Profit Per Ton	Annual Net Profit ($)
Au	Ag	Au	Ag			
500	10	31.50	0.38	31.89	26.39	3,958,500
400	8	25.20	0.30	25.50	20.00	3,000,000
350	7	22.05	0.26	22.31	16.81	2,521,500
300	6	18.90	0.23	19.13	13.63	2,044,500
250	5	15.75	0.19	15.94	10.44	1,566,000
200	4	12.60	0.15	12.75	7.25	1,087,500
150	3	9.45	0.11	9.56	4.06	609,000

Table II shows the projected earnings for the life of the operation, mining only the Lower and Upper Shaft reserves at an average gold price of $250 U.S. and an average silver price of $5 U.S.

Table II: Projected Earnings at $250 gold and $5 silver

Year	Net Profit (before royalties)	Capitalization $	Cum $	Royalties $	Undisc N.P. $	NPV 20% $	Cum NPV $
0	0	1,300,000	0		(1,300,000)	(1,300,000)	(1,300,000)
1	1,566,000	0	1,566,000	47,250	1,518,750	1,265,625	(34,375)
2	1,566,000	0	3,132,000	47,250	1,518,750	1,054,687	1,020,312
3	1,566,000	0	4,698,000	165,375	1,400,625	810,547	1,830,859
3.8	1,253,000	0	5,951,000	132,300	1,120,700	559,097	2,389,956
	5,951,000	1,300,000		392,175	4,258,825	2,389,956	

Profit Ratio: 4.28
Payback: 0.86 yrs.
Rate of Return, 3.8 yrs.: 52.05% per year

The above projected earnings and operating life are based only on probable reserves established to date. If the potential for additional reserves is realized the life of the operation could be extended an additional 3 - 10 yrs.

Recommendations

Although the preliminary economic evaluation is favourable, further work should be carried out prior to making a production commitment. Additional work should include: a) a pilot heap leach test to verify recoveries, b) fill-in drilling in the Lower and Upper Shaft Zones to establish with certainty the tonnage grade estimates, c) topographic and drill hole surveys to assist in the preparation of final feasibility studies and d) final feasibility studies to provide a more detailed economic evaluation and to determine optimum pit designs, access routes, waste disposal sites etc.

It is estimated that the above program could be completed for about $300,000 U.S. It is further estimated that the cost of putting the property into production, at a rate of 150,000 t.p.y., would be approximately 1.0 million U.S., which would bring the total estimated capitalization cost to production to 1.3 million U.S.

Respectfully Submitted

G. D. Belik, M. Sc.

March 6, 1985

Appendix I

Estimated Cost of Recommended Program

Phase I

-pilot heap leach test to verify recoveries -using about 1500 tons of material (available in dumps) crushed to minus 1/4"	$ 50,000
TOTAL PHASE I	$ 50,000

Phase II- contingent upon results of Phase I

a) surface, core and reverse circulation drilling 5000 ft. at $25/ft. all inclusive	$125,000
b) underground drilling -percussion holes to provide additional info along the 150 & 250 levels in the Lower Shaft Zone and possibly a section of holes down the Upper Shaft	25,000
c) topographic and drill hole surveys	20,000
TOTAL PHASE II	$170,000

Phase III- contingent upon results of Phases I & II

-feasibility studies	$ 80,000
TOTAL PHASE III	$ 80,000
TOTAL PROGRAM	$300,000 U.S.

Bighorn Mine - Roddy Resources look SW

JUN87

17

Bighorn Mtn - Reddy Res. - look SW

upper Shell area

JUN87

81

LEGEND

- CLAIM OUTLINE (PUBLISHED 1:10
- ROAD
- SHAFT
- DRILL SITE WITH SURFACE PROJECTION (CORRECTED)
- OUTLINE OF QUARTZ STOCKWORK AND QUARTZ VEIN, BRECCIA ZONE ; DETAILED STRINGER MINERALIZED AND ALTERED
- SURFACE TRACE OF STEEPLY DIPPING FAULTS
- LOW ANGLE FAULTS

LITHOLOGIES

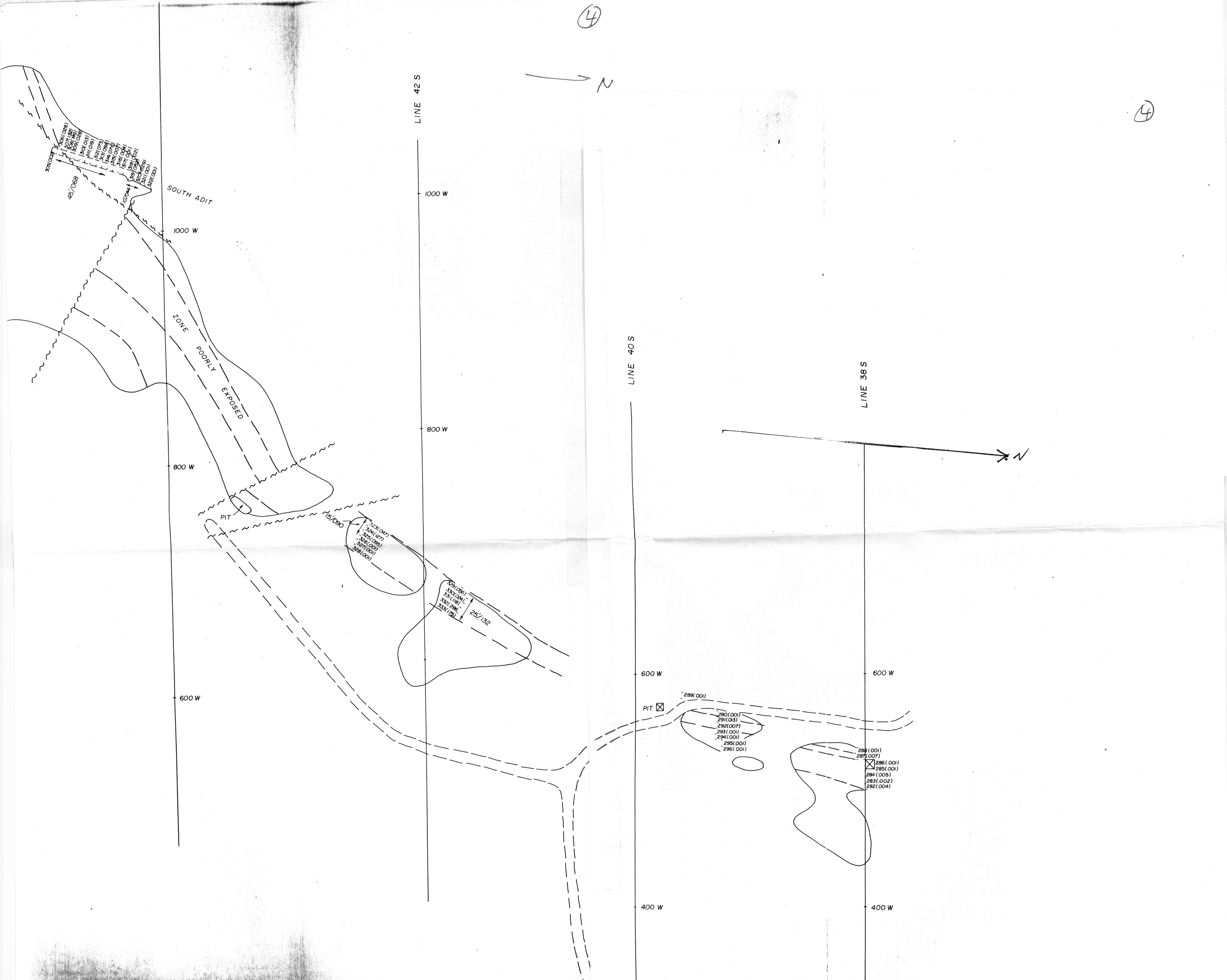
- TERTIARY VOLCANICS - DACITE, RHYOLITE, ANDESITE TUFFS AND FLOWS
- DIORITE DYKES AND SILLS
- PRECAMBRIAN GRANITE AND GNEISSES
- GEOLOGIC CONTACT

RODDY RESOURCES INC.

REVISED GEOLOGICAL PLAN
— AND —
DRILL HOLE LOCATIONS
BIGHORN PROJECT

MARICOPA COUNTY, ARIZONA, U.S.A.

TECHNICAL WORK BY: W. BELYK AND ASSOCIATES LTD.	SCALE: 1" = 200'
DRAWN BY: D.B.	DATE: NOVEMBER, 1984
APPROVED BY: D.R.	FIG. NO.



RODDY RESOU

SAMPLE LO

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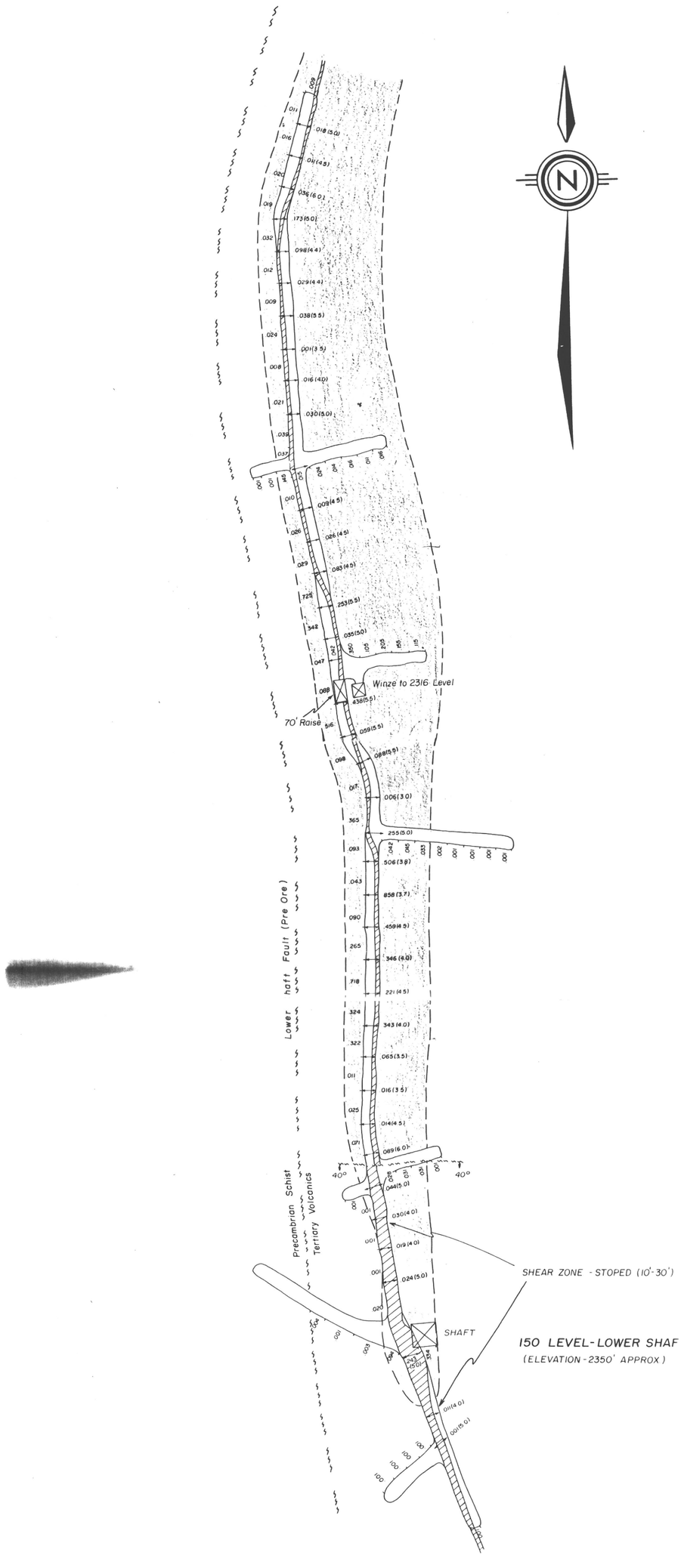

N
Winze to 2316 Level
70' Raise
Lower Shaft Fault (Pre Ore)
Precambrian Schist
Tertiary Volcanics
SHEAR ZONE - STOPED (10'-30')
SHAFT
150 LEVEL-LOWER SHAF
(ELEVATION-2350' APPROX)

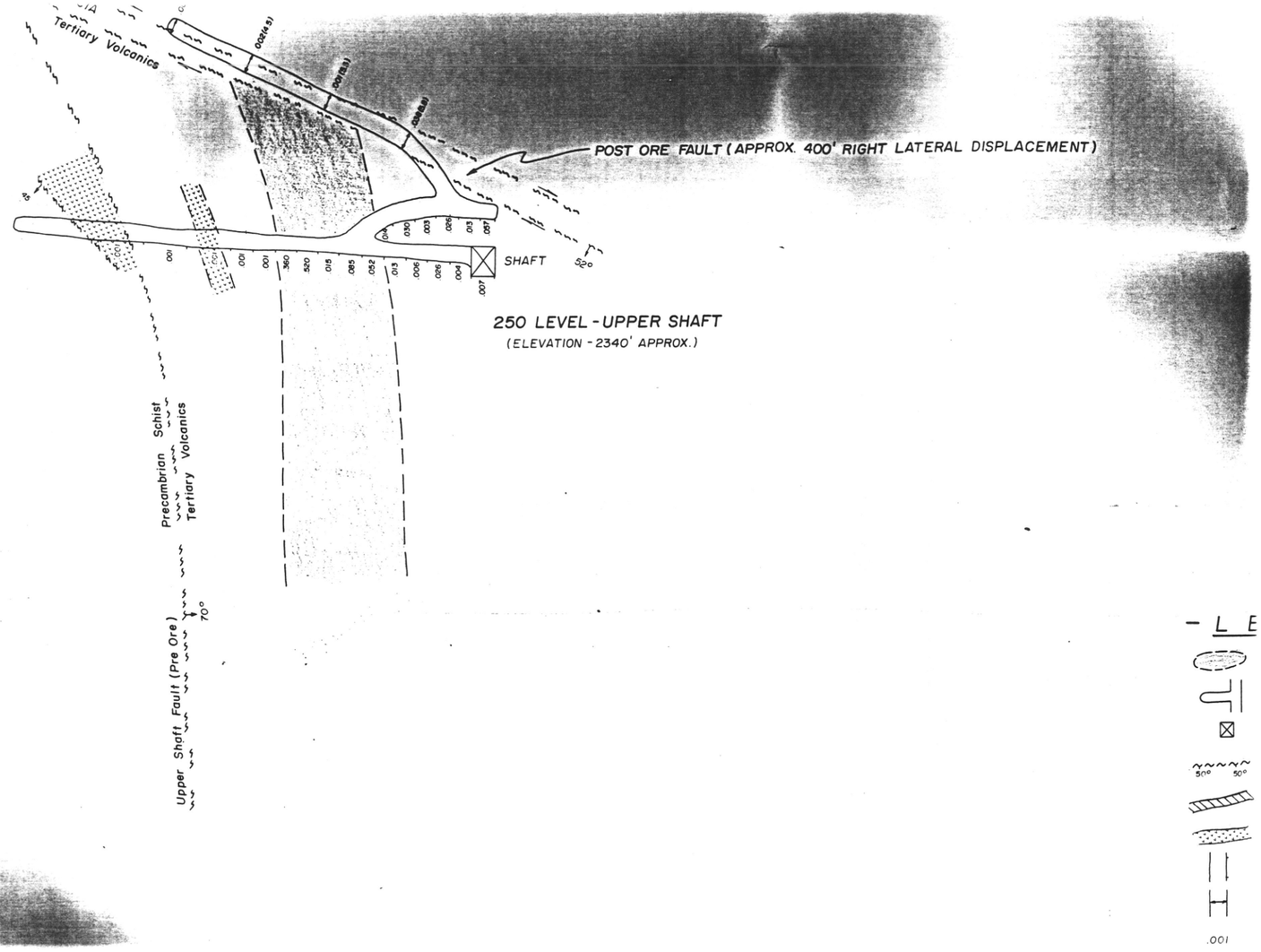

Tertiary Volcanics
POST ORE FAULT (APPROX. 400' RIGHT LATERAL DISPLACEMENT)
SHAFT
250 LEVEL - UPPER SHAFT
(ELEVATION - 2340' APPROX.)
Precambrian Schist
Tertiary Volcanics
Upper Shaft Fault (Pre Ore)
70°

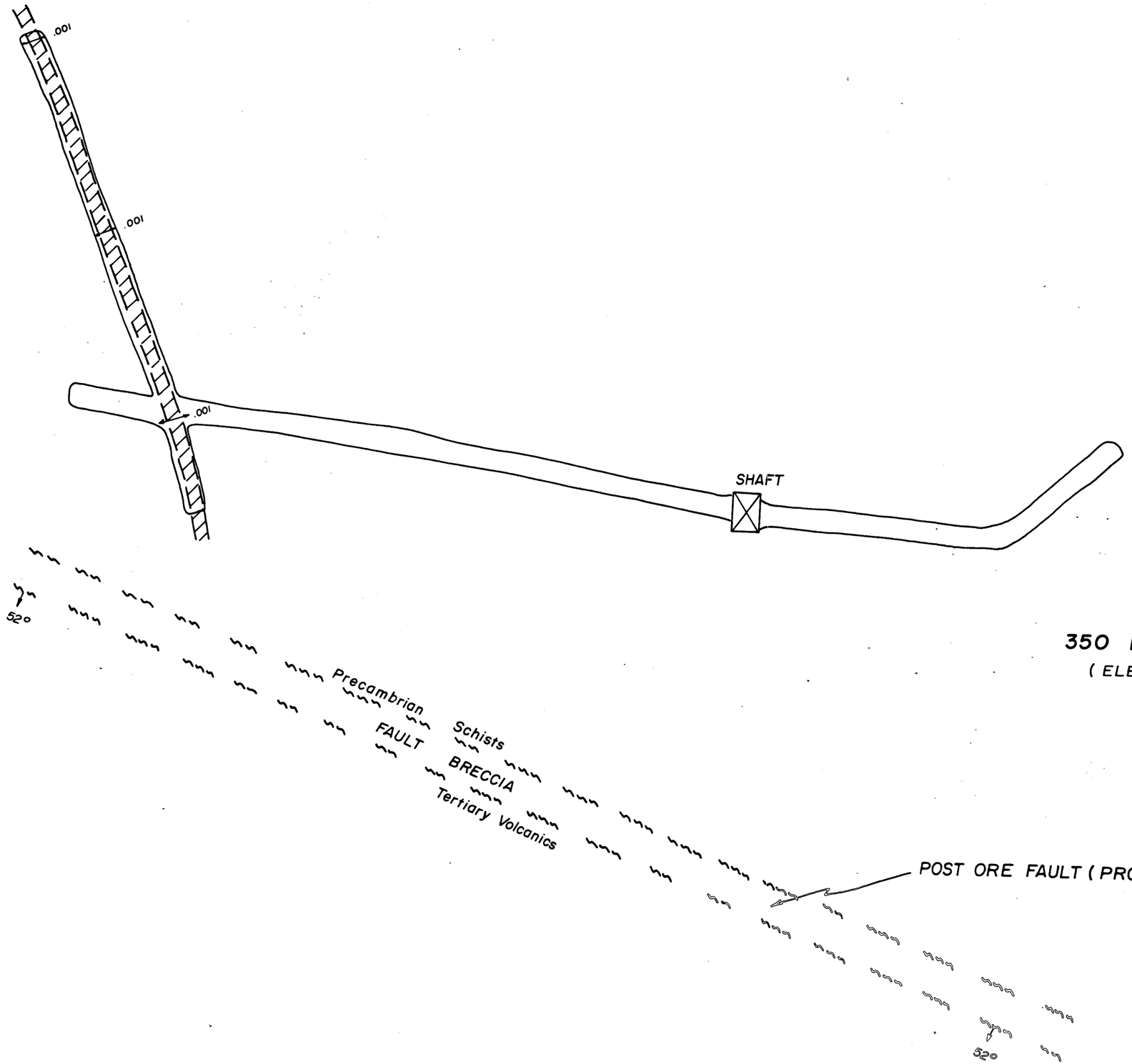
TABLE 1

PRODUCTION FROM WICKENBURG AREA GOLD MINES
(After Wilkins, 1985)

	Tons	Au Oz	Ag Oz
Congress Vein	370,222	259,105	230,263
Niagra	293,220	121,685	108,180
Queen of the Hill	20,125	8,050	7,157
Total Congress	683,367	388,750	345,600
Alvarado	140,000	25,000	31,000
Octave	800,000	204,000	200.000
Others*	150,000	20,000	20,000
Rich Hill		100,000	
Total	1,773,400	737,750	596,600

*Estimated production from Yarnell, Johnson, Meyer and Reese Mines.

	Tons	Au	Ag
Vulture Mine	200,000	366,000	400,000
Vulture Placers		50,000	
	200,000+	416,000	400,000



N

350 LEVEL - UPPER SHAFT

(ELEVATION - 2225' APPROX.)

RODDY RESOURCES INC.
1984 DRILL HOLE SUMMARY
BIGHORN PROJECT
MARICOPA COUNTY, ARIZONA

Hole #	Interval	Core Length	Oz/ton Gold (uncut)		
84PH-1	70-120	50 Ft.	0.116	(incl. 20' 0.186)	
2	140-185	45 Ft.	0.012		
3	5-75	70 Ft.	.075	(incl. 5' .410)	
4	0-120	120 Ft.	.092	(incl. 30' 0.179 & 15' 0.226)	
5	70-90	20 Ft.	.031		
	165-205	40 Ft.	.070		
6	120-135	15 Ft.	.054		
	230-245	15 Ft.	.044		
7	130-150	20 Ft.	.030		
8	Weakly Mineralized				
9	85-190	105 Ft.	.020		
10	150-220	70 Ft.	.055	(incl. 15' 0.117)	
	or 135-225	90 Ft.	.047		
11	120-170	50 Ft.	.037		
12	195-250	55 Ft.	.016		
13	60-65	5 Ft.	.096		
14	90-130	40 Ft.	.017		
15	100-125	25 Ft.	.047		
16	90-175	85 Ft.	.020	.019*	
	175-225	50 Ft.	.177	.170* (incl. 15' .246 & 10' .309)	
	or 90-225	135 Ft.	.078		
17	No Mineralization				
18	10-50	40 Ft.	.058		
	50-110	60 Ft.	.022		
	or 10-110	100 Ft.	.037		
19	105-170	65 Ft.	.020	.019*	1.3
	170-220	50 Ft.	.092	(incl. 20' 0.171)	4.6
	220-310	90 Ft.	.027		2.43
	or 105-310	205 Ft.	.041		8.33
20	390-410	20 Ft.	.094		
	410-425	15 Ft.	.032		
	or 390-425	35 Ft.	.068		
21	200-245	45 Ft.	.037	.041*	
22	240-265	25 Ft.	.038		
23	230-270	40 Ft.	.036		
24	220-235	15 Ft.	.061		
	or 190-245	55 Ft.	.028		
25	85-115	30 Ft.	.021		
	185-210	25 Ft.	.022		
26-31	Missed zone, faulted off				
32	205-225	20 Ft.	.067		
	or 160-230	70 Ft.	.033		
33-35	Weakly mineralized over wide intervals				

* Check assays at a different laboratory.

Surface

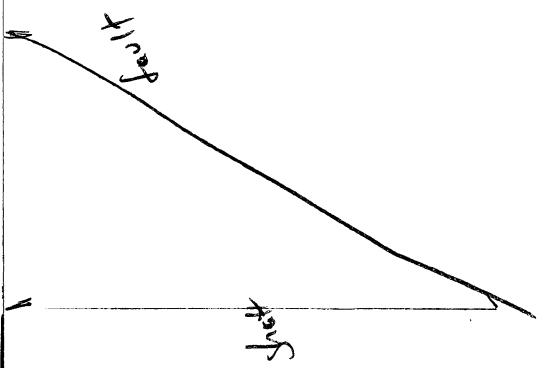
13,14 $35 \times .106 = 80' \times 35' \times .08 \times$

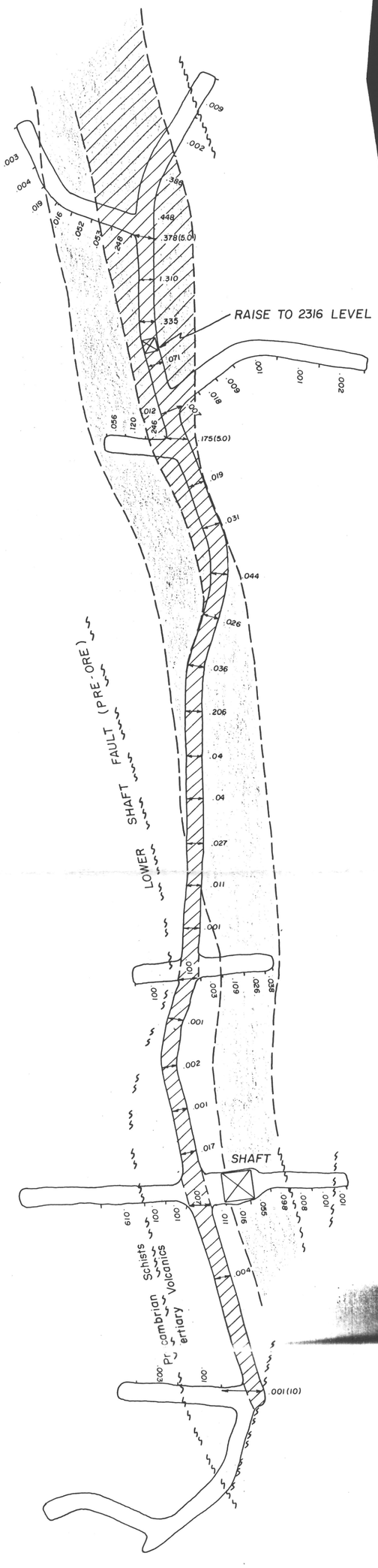
$150' \times 80' \times .07 \times$

14,32 →

15,16 — $200' \times 20' \times .09 \times$

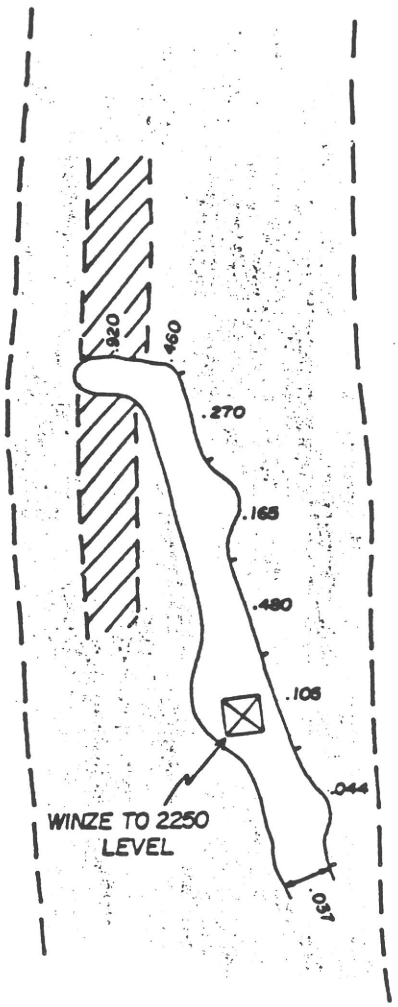
S and $50' \times 15' \times .11 \times 7$





250 LEVEL - LOWER SHAFT

(ELEVATION - 2250' APPROX.)



LEGEND

- MINERALIZED ZONE
- EXPLORATION DRIFT
- SHAFT, WINZE OR RAISE
- SHEAR ZONE
- .920 SAMPLE INTERVAL ALONG DRIFT WALL / GOLD VALUE FOR SAMPLE INTERVAL (OZ/TON)

186' level

RODDY RESOURCES INC.

2316 LEVEL
LOWER SHAFT ZONE
BIGHORN PROJECT

Tech. Work By: G. Belik and Assoc. Ltd.	Scale: 1" = 20'
Approved By: G. Belik, M.Sc.	Fig. No.

WESTMONT
MINING INC.

May 15, 1987

Mr. Walter Cullum
President
Roddy Resources Inc.
200-1055 West Hastings Street
Vancouver, B.C.
Canada V6E 2E9

Dear Walter:

While in the Wickenburg area recently Hugo Dummett and myself stopped in unannounced at your Bighorn Project. I was glad to see that your plans for a small-scale heap leach project at the Bighorn had been fulfilled and that the operation seems to be running quite smoothly. Hopefully, the gold bars will continue to come forth for several more years.

This letter is to thank your people at the site, particularly your new operations manager and your geologist for taking the time out of their busy schedule to briefly review with us various aspects of the organization.

Westmont Mining Inc. recently purchased the assets of NICOR Mineral Ventures. Westmont continues to look for significant gold-silver prospects and if your should seek a joint venture partner in the future, please contact Hugo or myself at this office.

Sincerely,

Gary A. Parkison

Gary A. Parkison
Senior Geologist

GAP:psp

CUSTAR 2341 South Friebus Suite 12 Tucson, AZ 85713 (602) 881-8871

Roddy Resources
2805-44TH AVENUE • VERNON, BRITISH COLUMBIA V1T 7P4 • (604) 542-1534

November 16, 1984

FOR IMMEDIATE RELEASE

GOLD MINERALIZATION REPORTED IN 28 OF 35 ROTARY DRILL HOLES

Gold mineralization ranging to 0.410 ounces per ton over extensive widths has been reported in 28 of 35 rotary drill holes testing Roddy Resources Inc. (ROD-V) Bighorn gold property located in Maricopa County, Arizona.

The company reported today that indicated commercial grade intersections were encountered in widths up to 205 feet with a tested strike zone extending approximately 4,500 feet in length. All assaying was undertaken at a Vancouver laboratory with several samples independently re-checked, the company reported.

Underground sampling is to be carried out in the next phase of exploration of the property and is to commence immediately, the company said.

The recently completed drill program appears to confirm the presence of a large, gold-bearing epithermal system that originally had been outlined by surface sampling, Roddy president, Walter Cullum reported.

The zone extends 4,500 feet in length and is indicated to be as much as 200 feet wide. Mineralization is known to extend to at least 600 feet in depth in some places, he said.

The property originally was developed for its possible potential as a copper producer in the early 1900's with sporadic further minor copper exploration attempts in the mid 1940's and 1950's and again in 1971.

.../2

RODDY RESOURCES INC.
1984 DRILL HOLE SUMMARY
BIGHORN PROJECT
MARICOPA COUNTY, ARIZONA

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14	90-130	40 Ft.	.017	
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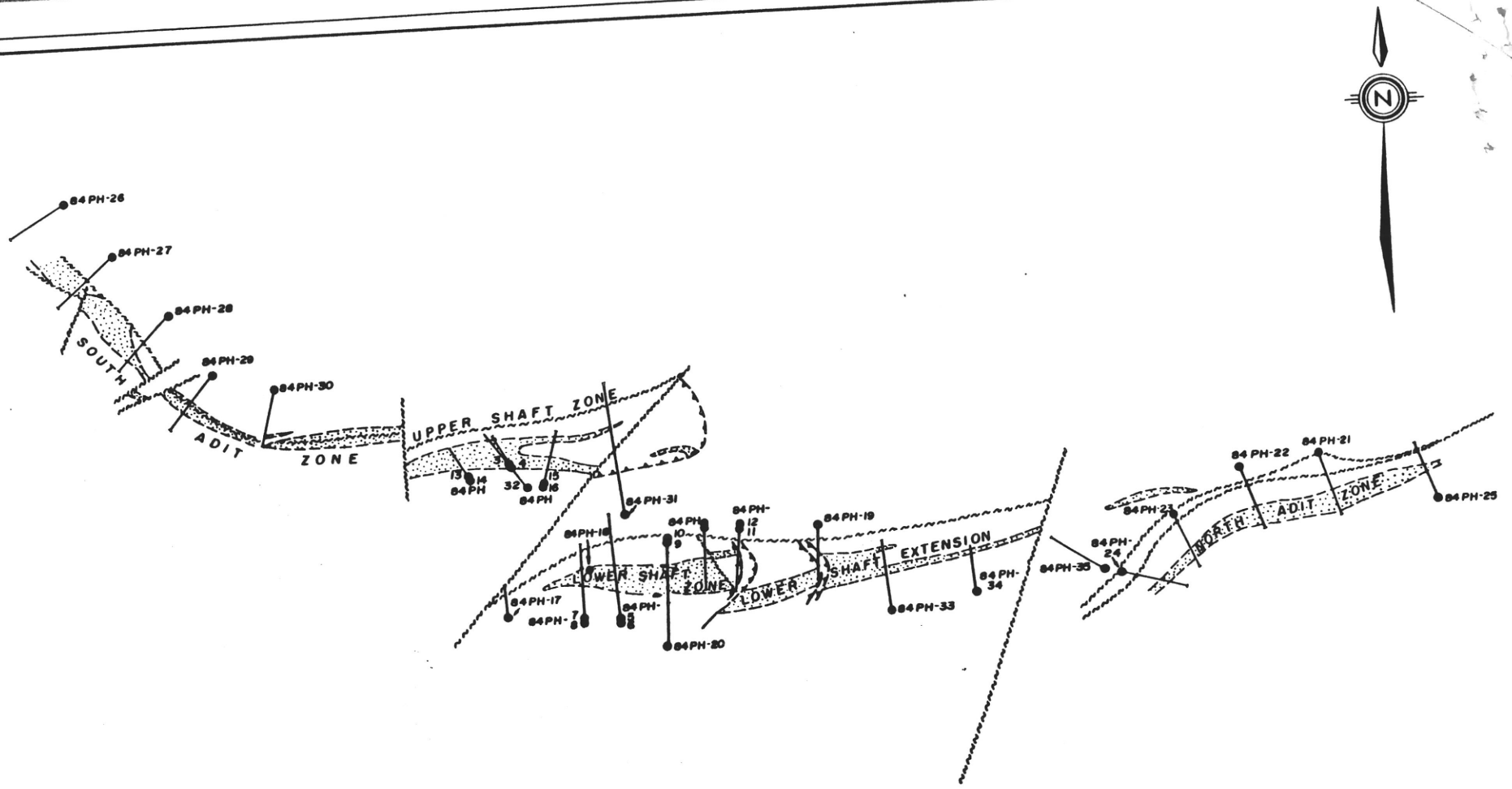


RODDY RESOURCES INC.

DRILL HOLE LOCATION PLAN

BIGHORN PROJECT

MARICOPA COUNTY, ARIZONA, U.S.A.

SCALE 1" = 400'

0' 100' 200' 400' 800'

~~~~~~~ Steeply dipping faults

Low angle faults

Outline of quartz stockwork and quartz vein breccia zone

84 PH-29 Drill hole location with surface projection
~~~~~~~

The current gold-oriented program follows an extensive surface exploration project. Results prompted an independent engineer to report that the property had "an excellent possibility for the delineation of several million tons of gold-bearing material in the 0.05-0.10 ounces per ton range which might be mined by low-cost, bulk mining methods."

Under terms of an acquisition agreement, Roddy can earn up to a 100 percent working interest, subject to a five percent net smelter return that commences two years after the start of commercial production and is limited to $1.5 million.

The company also has reported that a recently completed exploration program on its 50 percent owned Kusk property in east central British Columbia has confirmed the property has potential for hosting large zones of stratabound gold mineralization.

The prospect is adjacent to the south east of the "Frasergold" gold discovery being developed jointly by Amoco Canada and Eureka Resources Inc.

In a November 2 report to the company, an independent consulting geologist states "the host unit for the gold mineralization on the Frasergold property has been extended into the Kusk claim area and a large zone of anomalous gold values in soils, associated with the unit, has been identified."

Cullum said the anomalous zone extends for approximately one mile in length and one-half mile in width.

An aggressive exploration program, including preliminary diamond drill testing of the property, is planned for the 1985 field season.

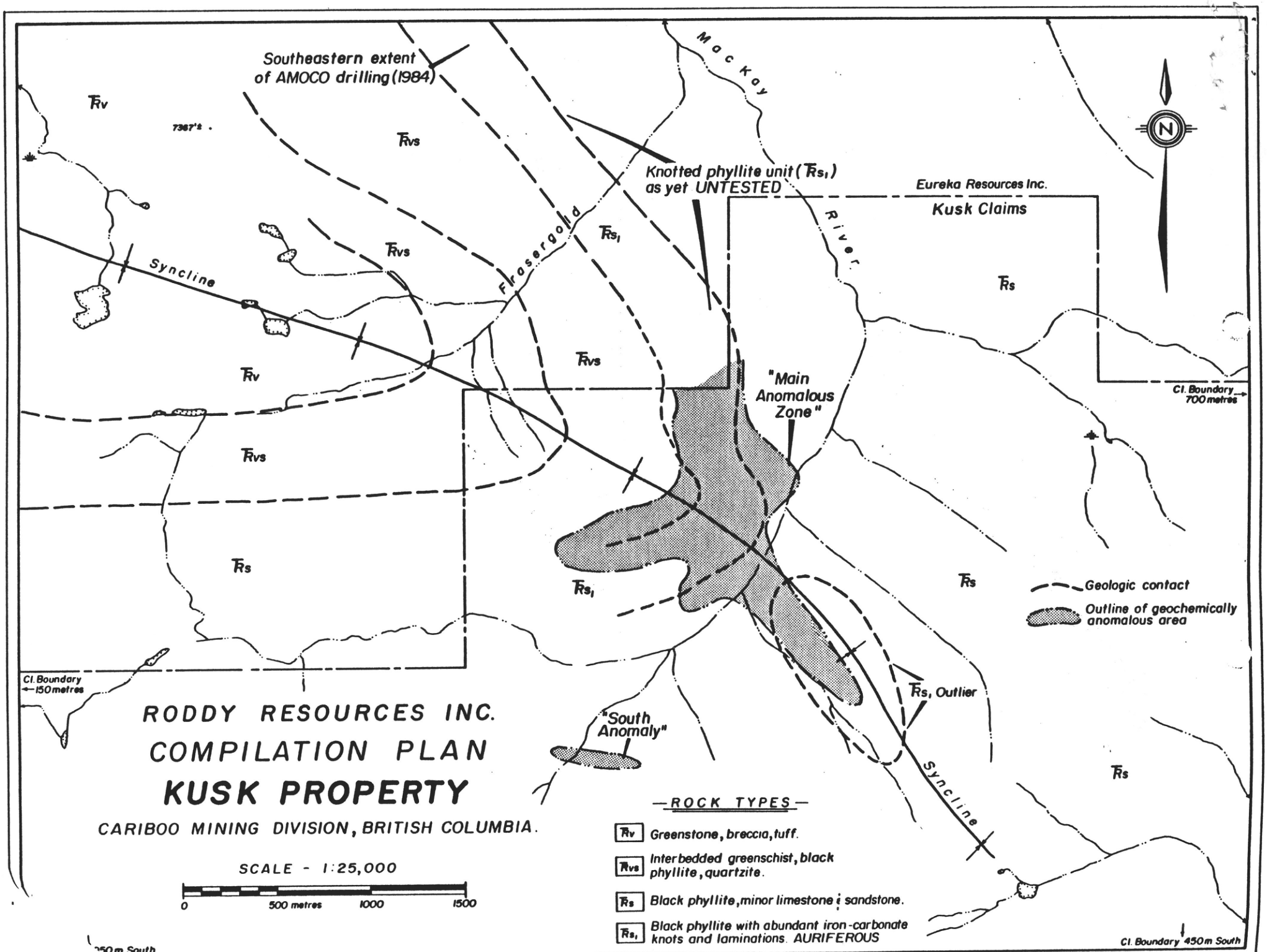
- 30 -

Contact:
Walter Cullum (604) 271-5413 or (604) 542-1534

Walt Cullum

On Behalf of the Board

The Vancouver Stock Exchange has neither approved nor disapproved the information ained herein.


Southeastern extent of AMOCO drilling (1984)
MacKay
Knotted phyllite unit (Trs1) as yet UNTESTED
Eureka Resources Inc.
Kusk Claims
Fraser
River
Syncline
"Main Anomalous Zone"
Cl. Boundary 700 metres
Cl. Boundary 150 metres
"South Anomaly"
Trs1 Outlier
Syncline
Cl. Boundary 450m South
Geologic contact
Outline of geochemically anomalous area
Trv
Trvs
Trs
Trs1
N
RODDY RESOURCES INC.
COMPILATION PLAN
KUSK PROPERTY
CARIBOO MINING DIVISION, BRITISH COLUMBIA.
SCALE - 1:25,000
0
500 metres
1000
1500
ROCK TYPES
Trv Greenstone, breccia, tuff.
Trvs Interbedded greenschist, black phyllite, quartzite.
Trs Black phyllite, minor limestone & sandstone.
Trs1 Black phyllite with abundant iron-carbonate knots and laminations. AURIFEROUS

copy: Barry Finlayson
Lawrence & aw

NIRVANA OIL & GAS LTD. & RODDY RESOURCES INC.
1020-475 Howe Street, Vancouver, B.C. V6C 2B3

Symbol: NVN (VSE)
ROD (VSE)

September 17, 1984

JOINT PRESS RELEASE

Nirvana and Roddy confirm extension of the Frasergold anomaly on their Kusk Property

Preliminary results of a geochemical program on the Kusk claims held jointly by Nirvana Oil & Gas Ltd. and Roddy Resources Inc. confirm a gold anomaly which extends from the boundary of the Eureka/Amoco property for approximately one and one-half (1½) kilometres into the Nirvana/Roddy Kusk claims. This anomaly is on strike with the Eureka/Amoco Frasergold mineralization and is open to the south.

Nirvana/Roddy will commence immediately to do an additional 30 kilometre sampling program over a 4 kilometre length to extend the sampling to the south and west. It is expected that additional results will be available in approximately 2 weeks.

The Directors of Nirvana and Roddy are extremely pleased to learn that their Kusk claims are not only adjoining the Eureka/Amoco property, but show a definite anomaly on strike with the Frasergold anomaly. With this information, the results of the Eureka/Amoco drilling program are anxiously awaited.

M. Elden Schorn,
Director, Nirvana Oil & Gas Ltd.

Mr. Schorn has prepared this news release on behalf of the Company and accepts full responsibility for its contents. The Vancouver Stock Exchange has neither approved nor disapproved the information contained herein.

Roddy Resources
2805-44TH AVENUE • VERNON, BRITISH COLUMBIA V1T 7P4 • (604) 542-1534

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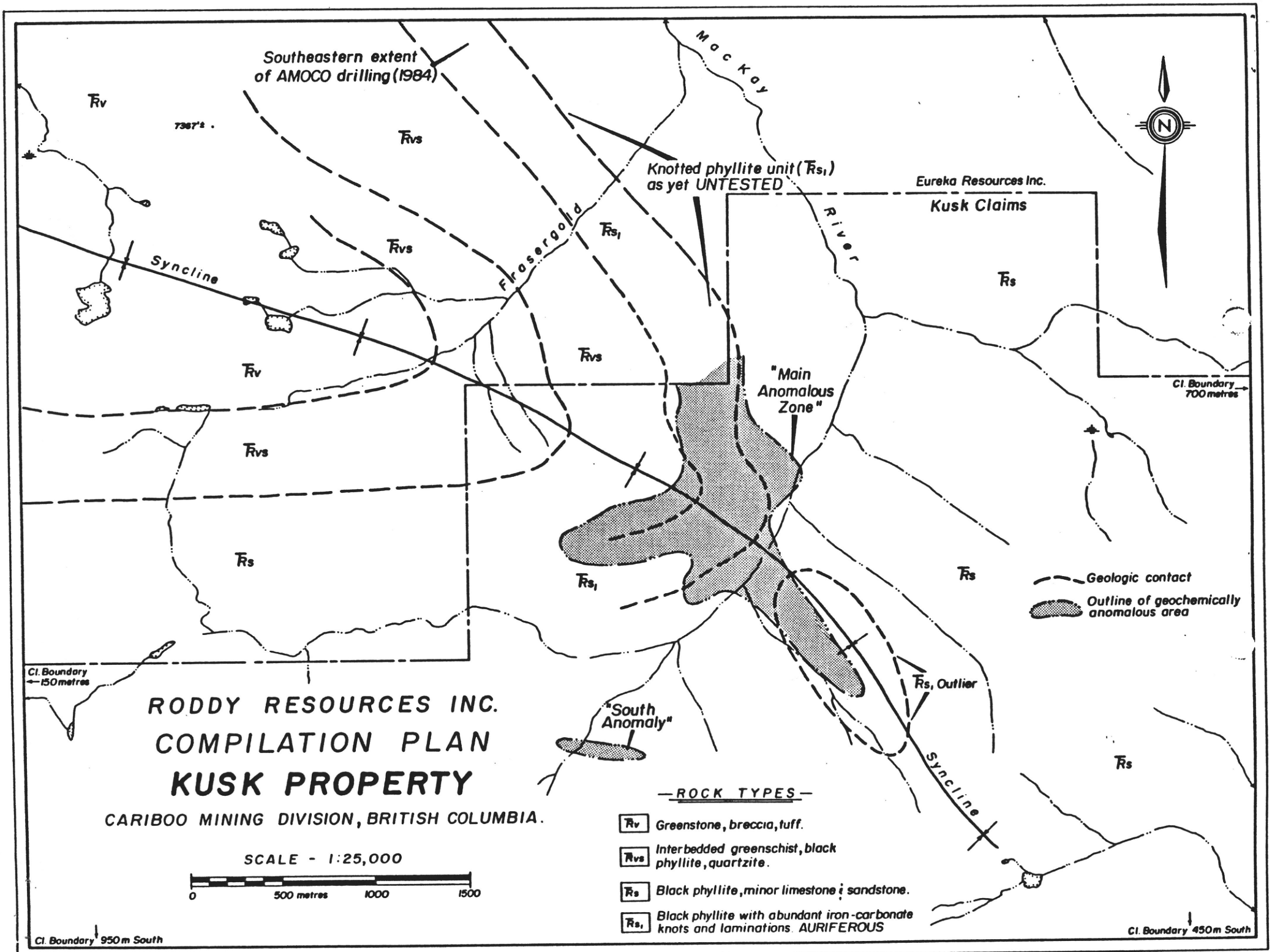
On Behalf of the Board



RODDY RESOURCES INC.

COMPILATION PLAN

KUSK PROPERTY

CARIBOO MINING DIVISION, BRITISH COLUMBIA.

Copy: Barry Fitzgerald
Lawrence & Law

NIRVANA OIL & GAS LTD. & RODDY RESOURCES INC.
1020-475 Howe Street, Vancouver, B.C. V6C 2B3

Symbol: NVN (VSE)
ROD (VSE)

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Mr. Schorn has prepared this news release on behalf of the Company and accepts full responsibility for its contents. The Vancouver Stock Exchange has neither approved nor disapproved the information contained herein.

PROPERTY SUMMARY

and

PRELIMINARY ECONOMIC EVALUATION

- of the -

BIGHORN GOLD PROSPECT
Maricopa County
Arizona, U.S.A.

- for -

RODDY RESOURCES INC.
200-1055 West Hastings Street
Vancouver, B.C.
V6E 2E9

Prepared by:

G. BELIK & ASSOCIATES LTD.
664 Sunvalley Drive
Kamloops, B.C.

G. D. Belik, M.Sc.

April 30, 1985

Introduction

The Bighorn Property, situated in Maricopa County, northwestern Arizona, contains four zones of significant epithermal-type gold mineralization. Based on the results of surface and underground sampling and drilling carried out to date, mineable reserves of the Lower Shaft and Upper Shaft Zones are placed at 565,000 tons probable, grading approximately 0.09 oz gold per ton. These reserves are amenable to open pit mining at a waste: ore ratio of 3:1 to 3.5:1.

Based on a open pit, 150,000 t.p.y., heap leach-type operation it is estimated that raw gold bullion can be produced from the two zones for about $87 U.S. per oz. At a gold price of $300 U.S., assuming a recovery rate of 70% (indicated from results of preliminary column leach tests), the operation would generate an annual profit, before royalties of $2,044,500 U.S. for a period of 3.8 years. Total net profit after royalties and payback of capitalization costs (estimated at 1.3 million) would be 6.08 million with an average annual rate of return on investment capital of 57.3%. Payback of investment capital would be achieved in 0.65 years.

The 3.8 year mine life, operating at a rate of 150,000 t.p.y., is based on probable reserves developed to date. There is a good potential for developing additional reserves on the property, particularily at depth in the Lower Shaft Zone, along the extension of the Lower Shaft Zone to the north, and within two other zones on the property referred to as the North Adit and South Adit Zones. Although there is insufficient data at present to estimate possible additional reserves, the target areas outlined above potentially could host another 1.5 million tons. If the potential for these additional reserves is realized the operation life of the mine could be extended for another 10 years.

Salient Features and Exploration History

The Bighorn Property, consisting of ten patented and 12 unpatented mineral claims, is situated in rolling, foothills-type terrain, within a desert region of northwestern Arizona. The property can be reached via about 20 miles of back roads from either Wickenburg, on Highway 93, or Aguila, on Highway 60.

The claim area straddles a major northerly-trending

fault which separates a Tertiary volcanic sequence on the east and Precambrian schists and gneisses to the west. Within the area of the claims, in close proximity to the Tertiary/Precambrian fault contact, significant gold mineralization is confined to steeply dipping, tabular quartz stockwork and vein/breccia zones up to 130 feet wide. Post ore faulting has segmented the main mineralized structure into four en-echelon segments which have a combined strike length exceeding 3200 feet.

Early development work, which includes several shafts, adits and shallow pits, was carried out by the Hauxhurst Copper Company between 1908 and 1920. The main workings consist of two vertical shafts, 600 ft. and 486 ft. deep. The deeper, or Lower Shaft (No. 1) has fairly extensive lateral workings on the 150 and 250 levels. The Upper Shaft (No. 2) has about 200 ft. of lateral development on the 250 level and 300 ft. on the 350 level.

There are no records of any substantial production. About 4,500 tons of dump ore reportedly was milled in 1943 which yielded $4.50 U.S. gold per ton ($35 gold) and 0.5 to 0.75% copper. In 1961, three shipments of

dump and surface ore, totalling 133 tons, were treated by the Superior and Hayden Smelters in Arizona. These shipments averaged 0.091 oz gold per ton and 2.01% copper.

Since acquiring the property in January, 1984, Roddy Resources Inc. has carried out a comprehensive exploration program consisting of detailed surface sampling and mapping, reverse-circulation drilling (9,840 Ft. in 35 holes), underground mapping and sampling and bulk sampling for metallurgical testing.

Mineralization and Geological Model

The complex quartz vein zones which host the mineralization on the Bighorn Property are characterized by an intense stockwork of quartz veins and veinlets, up to 130 feet wide, with intensely silicified vein/breccia zones up to 16 feet wide. Less intense stockwork zones occur within and peripheral to the main stockwork zones. The host volcanic units typically are kaolinized and locally chloritized.

Quartz within the stockwork and vein/breccia zones generally is banded, contains abundant drusy cavities

and locally contains jasperoid-type fragments and bands. Black specular hematite and dark, earthy red hematite, in amounts up to 30%, occur finely impregnated within quartz and wallrock and within veinlets and blebs cutting quartz and wallrock.

Fine native gold, ranging from less than .01 to more than 1.0 oz/ton occurs both within stockwork and vein/breccia zones. Copper as secondary oxides, carbonates and silicates locally is abundant within the vein/breccia zones and generally present in minor amounts within the stockwork zones. The average copper content is estimated to be between 0.15 and 0.3 percent.

The Bighorn Property displays most of the characteristics of a classic epithermal-type deposit. Deposits of this type have been major producers of gold and silver throughout western North America and Mexico.

A sketch illustrating the probable evolution of the Bighorn deposits is shown in Figure 1033-3.

Economics

A preliminary economic evaluation of the Bighorn

Property was carried out by G. Belik and Associates Ltd., in February, 1985. Based on the results of work carried out to date the property is viewed as having an excellent potential for the development of an economically viable open pit, heap leach-type operation.

Probable reserves established to date would sustain a 150,000 t.p.y. mining operation for 3.8 years. Possible additional reserves could add another 10 years to the life of the operation.

Table I illustrates the projected annual net profit, at various metal prices, for a 150,000 t.p.y. operation mining ore from the Upper and Lower Shaft Zones at an average grade of 0.09 oz gold and 0.15 oz silver per ton. The calculations are based on a gold recovery of 70%, a silver recovery of 25% and operating cost of $5.50 per ton of ore.

Table II shows the projected earnings, at various metal prices, for the life of the operation.

Conclusions and Recommendations

The Bighorn Property has many positive features.

Table I: Projected Annual Net Profit (before taxes & royalties) at various metal prices (U.S. funds)

Price ($)		Value Per Ton ($)		Total Value Per Ton ($)	Operating Costs Per Ton ($)	Net Profit Per Ton	Annual Net Profit ($)
Au	Ag	Au	Ag				
500	10	31.50	0.38	31.89	5.50	26.39	3,958,500
400	8	25.20	0.30	25.50	5.50	20.00	3,000,000
350	7	22.05	0.26	22.31	5.50	16.81	2,521,500
300	6	18.90	0.23	19.13	5.50	13.63	2,044,500
250	5	15.75	0.19	15.94	5.50	10.44	1,566,000
200	4	12.60	0.15	12.75	5.50	7.25	1,087,500
150	3	9.45	0.11	9.56	5.50	4.06	609,000

Table II: Projected Earnings at various metal prices (U.S. funds) for life of operation (3.8 years)

Price $ Au	Price $ Ag	Net Earnings $	Capitalization $	Royalties $	Payback of Capitalization (yrs.)	Net Profit after Royalties and payback of Capitalization
500	10	15,042,000	1,300,000	630,000	0.34	13,112,000
400	8	11,400,000	1,300,000	544,000	0.44	9,556,000
350	7	9,582,000	1,300,000	501,000	0.53	7,781,000
300	6	7,769,000	1,300,000	458,000	0.65	6,077,000
250	5	5,951,000	1,300,000	392,000	0.86	4,259,000
200	4	4,133,000	1,300,000	317,000	1.24	2,516,000
150	3	2,314,000	1,300,000	238,000	2.27	776,000

Projected earnings are based only on probable reserves established to date. If the potential for additional reserves is realized the life of the operation could be extended an additional 3-10 years.

The property is readily accessible by road, close to towns and transportation facilities and is situated in a warm arid region suitable for a year-round leaching operation. A preliminary economic evaluation suggests that sufficient reserves have been outlined to support a moderate size mining venture which could generate a strong positive cash flow in a short period of time.

The above features suggest that the Bighorn Property has an excellent mine-making potential. However, before making a final production commitment it is essential that further work be carried out. This work should include: a) a pilot heap-leach test to verify recoveries obtained in the column leach tests, b) fill-in drilling in the Lower and Upper Shaft Zones to establish with certainty the tonnage/grade estimates, c) topographic and drill hole surveys to assist in the preparation of final feasibility studies and d) final feasibility studies to provide a more detailed, updated evaluation and to determine optimum pit designs, access routes, waste disposal sites etc.

The program outlined above is estimated to cost $300,000 U.S., which is included in the estimated $1.3 million capitalization costs to bring the property into production.

Respectfully Submitted,

G. D. Belik, M.Sc.

April 30, 1985