

Report on
THE BEATRICE PROPERTY
near Camborne, B.C.

Revelstoke Mining Division
Lat. 50° Long. 118 N.E.

f o r
DAKOTA SILVER MINES LTD. (n.p.l.)
Beaton, B.C.

North Vancouver, B.C.
September 8th, 1964.

by:
K.G. SANDERS, P. ENC.

DAKOTA SILVER MINES LTD.
REPORT ON THE BEATRICE PROPERTY
REVELSTOKE MINING DIVISION
BRITISH COLUMBIA

LOCATION AND ACCESSIBILITY:

The property is located in the Lardeau district of South Eastern B.C. 480 road miles E.N.E. of Vancouver, B.C. Access is by automobile via the Trans-Canada Highway to Revelstoke, thence South to Arrowhead on the Upper Arrow Lake, across to Galena Bay by ferry, and east to Beaton and Camborne.

The mine workings are situated near the head of the South-east fork of Mohawk Creek and reached by 7 miles of mine road from Camborne to the camp at 6,900 ft. elevation.

The property is equally accessible from the South via the Southern Trans-Provincial Highway through Nelson, Kaslo, Trout Lake City and Beaton. Accessibility may be summarized as "Good".

CLAIMS AND OWNERSHIPS:

The Beatrice claim group consists of two Crown Granted claims, three leased claims, twenty located claims and five located fractions for a total of thirty. They are:

BEATRICE	C.G. Lot #4586			
FOLSOM	C.G. Lot #4587			
MINA FR.	Mineral Lease #M14			
MAYMIE MACK	Mineral lease #M14			
IRON MAST	Mineral lease applied for by Dakota Silver Mines			
MOHAWK 1 - 5 incl.	Record No's 4534 M - 4538 m (Dakota Silver Mines)			
MIGHTY 1 -15 incl.	Tag No.'s 535353 - 535359 incl.	"	"	"
MOHAWK FR.	Record No. 4543 m	"	"	"
MINA FR.	Tag No. 535369	"	"	"
MAYMIE FR.	" " 535370	"	"	"
MAST FR.	" " 535389	"	"	"
STRONG FR.	" " 535390	"	"	"

All of the above claims are in good standing.

GEOLOGICAL SETTING:

The Beatrice ore showings are located in the central mineral belt of the Lardeau district and lie between two former producing mines, the Sunshine Lardeau and the True Fissure.

The Lardeau district extends from the North end of Kootenay Lake to the C.P.R. main line East of Revelstoke embracing an area approximately 70 miles long and 20 miles in width. The regional structure in the district is a tightly folded major synclimo striking Northwest and identified by the Badshot limestone formation traceable on each limb of the fold. Mineral 'bolts' are found along the strike of the synclinal axis and associated with both limbs of the synclimo. The central belt along the core of the synclimo has been the most productive. The synclimo is flanked by granitic intrusions.

Rocks of the district are late Precambrian and are schists phyllites, slates, quartzites and limestones. Folding is isoclinal and intense with much associated shearing. Ore deposits are vein types cutting the formations at either low or almost right angles. Mineralization is silver-lead-zinc, or, pyrite-gold in the quartz vein fillings. Replacement ore carrying lead-zinc with low silver values is also found in the Lardeau district associated with the more limey formations on the flanks of the synclimo.

Rock exposures at the Beatrice property in the mine area are of two types: reddish-brown weathering grit and graphitic argillite now converted to schist. The grit formation comprises the prominent rock knoll into which the mine workings have been driven. This formation is greatly contorted and forms the core of a synclimo with the graphitic schist folded around it. Most of the mine workings are in the schist below the grit formation. The fold plunges gently to the Northwest.

ORE DEPOSITS:

The ore occurs in two veins called the Beatrice vein and the Main vein. The Beatrice vein strikes about North fifty degrees East and dips about sixty five degrees South East, and in this attitude represents a break across the strike of the controlling synclimo. The Main vein strikes about North forty degrees West and dips sixty five degrees North East and thus represents a break across the strike of the formations and the synclimo at a very small angle.

Where exposed underground both these veins would average at least three feet in width and aggregate length is 150 feet, both veins open on strike. The mineralization consists of a solid streak of sulphide ore up to eighteen inches wide running between the walls of a fissure filled with crushed argillite and quartz veinlets. Some disceminated mineralization is found outside of the Main streak of massive sulphides. There is an extremely fine grained mixture of galena, and sphalerite, generally high in silver content. Where the wall rocks of the Beatrice vein are in the grit formation the character of the ore is somewhat different than when graphitic schist makes up the wall rock. As seen in the Glory Hole there is a high grade vein of quartz, galena, pyrite and sphalerite 3 feet wide on the footwall of the vein zone and a replacement zone up to 10 feet wide runs into the hanging wall. ² NOT MINED

The replacement ore contains mostly pyrite but still significant amounts of galena and sphalerite.

DEVELOPMENT:

The elevations are: Glory Hole 7320, number one level 7260, sub level 7160, number two level 7100, number three level 6900.

The Glory Hole and number one level are connected by open stops. A vertical shaft connects number one level, the sub level, and the number two level.

There is an underhand stops below number one level but it is now full of water. No stoping has been done on the Main vein. At present the shaft is impassable between the sub level and number one level. It is thought that no ore was found in the vertical shaft.

PRODUCTION:

Old Minister of Mines Reports show a total production of about 300 tons during the period 1897-1907. This ore was hand sorted and the gross silver and lead content was well over \$100.00 per ton at 1907 prices. The bulk of this production is assumed to have come out of the Beatrice vein from number one level to the Glory Hole and from the underhand stops below number one level. There has been little or no production from the Main vein. Rough measurements of the stoped area on the Beatrice vein show that about 900 tons were removed. This 900 tons therefore is assumed to have graded about \$30.00 per ton at 1907 prices or well over \$50.00 per ton at to-day's prices.

SAMPLING RESULTS:

The writer took seven samples described as follows:

<u>NO.</u>	<u>WIDTH</u>	<u>VEIN</u>	<u>LOCATION</u>
80326	1.8'	Beatrice	High grade streak on FW at Glory Hole
80327	12.0'	Beatrice	Replacement ore in HW at Glory Hole
80328	2.8'	Baatrice	Face beyond stoped area in #1 level
80329	grab	Beatrice	Remnant stops muck above #1 level
80330	2.0'	Main	North end of drift on vein on #2 level
80331	3.2'	Main	Top of raise above #2 level
80332	2.8'	Main	Sub level

THE ASSAY RESULTS ARE:

<u>NO.</u>	<u>oz. Au.</u>	<u>oz. Ag.</u>	<u>% PB</u>	<u>% Zn.</u>
80326	0.02	14.1	0.37	20.06
80327	0.04	13.4	2.56	14.99
80328	0.02	14.2	3.08	12.18
80329	0.04	75.8	27.82	14.39
80330	0.02	3.6	0.94	8.23
80331	0.02	8.0	3.39	6.51
80332	0.02	32.4	12.74	12.50

Sample No. 80328 is thought to be representative of the Beatrice vein and the composite of 80330 and 80332 which is 2.4' wide grading 0.02 gold, 20.3 silver, 7.82 lead, and 10.70 zinc is considered representative of the possible grade of the Main vein.

THE NO. 2 ORE GOLD VEIN:

This vein was seen but not examined by myself and is not being examined because it is assumed irrelevant to the silver, lead, zinc mineralization sought at this time. This vein's persistence along strike to cross the controlling synclinal structure could possibly 'make ore' at depth.

SUMMARY:

Excluding the Gold vein, two mineralized veins exist on the Beatrice property. The aggregate length of these veins which are both open on strike at both ends is 150 feet. The Beatrice vein has shown vertical persistence over 80 feet and the Main vein over 160 feet. The gross gold-silver-lead-zinc value of these veins across a mining width of three feet has been indicated at about \$50.00. There have been enough high silver assays obtained, plus indications of possible widths up to and beyond five feet to thoroughly justify an expenditure of at least \$50,000.00 on this property.

EXPLORATION POSSIBILITIES:

MAIN VEIN

This vein shows good persistence through three levels and can be expected to continue down dip to the number three level. Since the number three portal is the easiest access for underground work, the East heading on this level could be advanced in a combined exploration-development program 500 ft. southeasterly to the projected position of the Main vein. Upon intersection of the ore body at this heading a raise should be driven to the number two level in addition to drifting the full length of the vein. In the event that no ore is encountered on this drive the raise should be driven through to number two in order that the ore between two and one may be extracted via number three level. Additional tonnage should be found below number two while driving the raise even if it does not start in ore.

BEATRICE VEIN:

Because of the irregular strike and dip of this vein in the graphitic schist it would be unwise to stop out too far in trying to locate the downward extension below number one level. The vein could best be traced down dip by underground diamond drilling of up,

flat and down holes from the sub level in order to grid the assumed vein position on 50 ft. centres and trace it vertically from numbers one to number two level. Horizontal drilling at 50 ft. spacing would be advisable as far as is practical to follow the vein while working on the sub level. The underhand stope could be pumped out and the vein thoroughly sampled and examined at its lowest depths. The objective of this work would be to eventually trace the "Beatrice Vein" to the level of the number two and then the number three adits.

Simultaneous with this work a raise should be driven continuing above the present raise on number two level to the sub level and up to the number one level.

RECOMMENDATIONS:

The Beatrice property warrants an expenditure of at least \$50,000.00 in its present state of development. The following work is hereby recommended:

1. Five hundred feet of crosscutting and drifting on #3 level on the Main vein	\$20,000.00
2. Underground diamond drilling from the sub level for the Beatrice vein 900 ft. - AX d.d. @ \$6.00 ft.	5,400.00
3. Raise from #3 level to #2 level on Main vein (225 ft.)	6,750.00
4. Raise from #2 level to #1 level on Main vein (160 ft.)	4,800.00
5. Road rehabilitation	5,000.00
6. Camp construction and general mobilization for the program	3,000.00
7. Contingencies	5,000.00
	\$49,950.00

Respectfully submitted,

K.G. Sanders, P.Eng.

North Vancouver, B.C.
September 8, 1964

7320

GLORY HOLE

BEATRICE VEIN
INTERSECTS HERE

GRIT

GRAPHITIC SCHIST

THEORETICAL INTERPRETATION
OF GRIT-SCHIST CONTACT

#1 LEVEL

7260

APPARENT DIP
OF -63°

SUB LEVEL

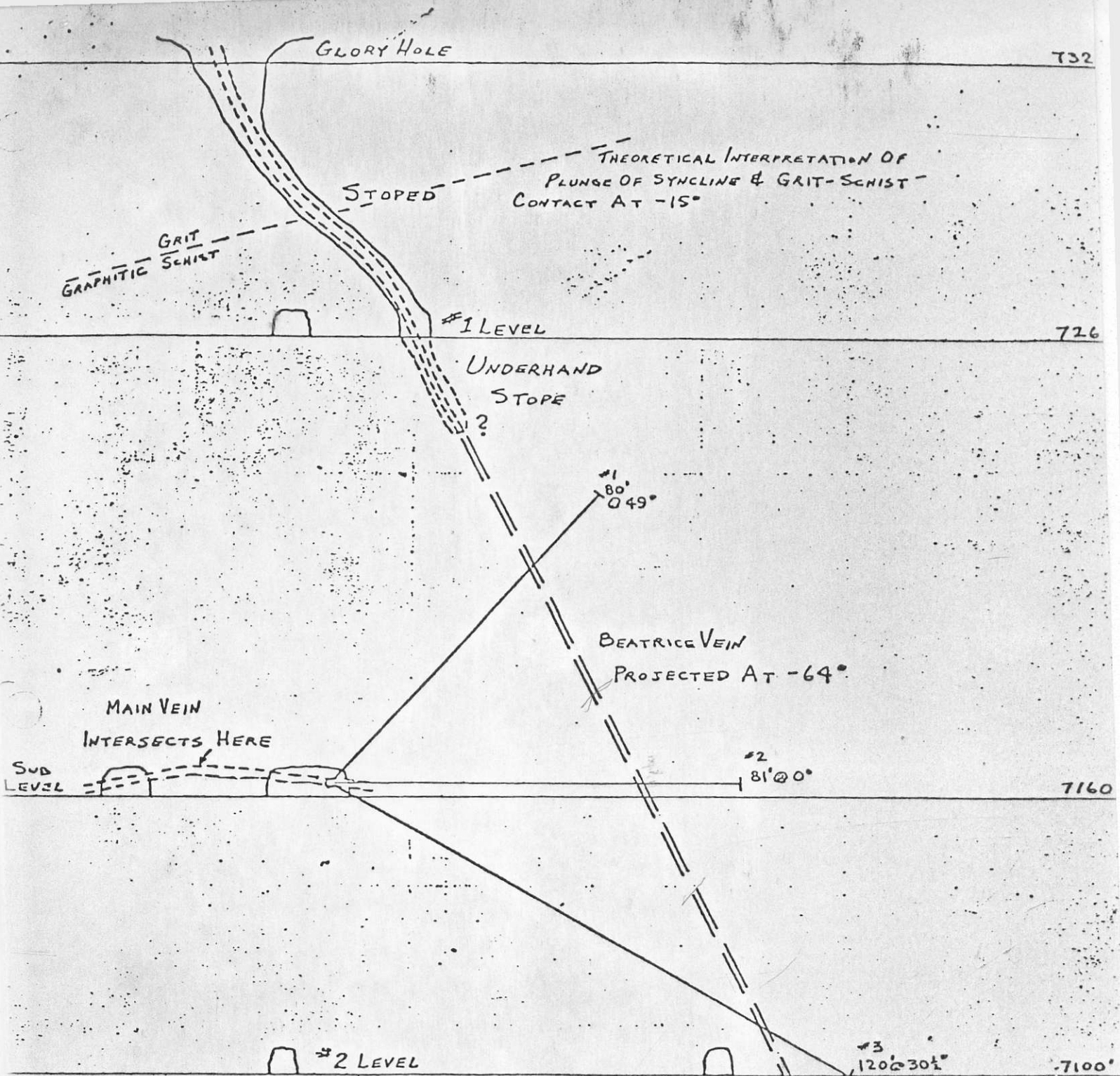
7160

#2 LEVEL

7100

DAKOTA SILVER MINES LTD.
SECTION #2
SHOWING MAIN VEIN
BEATRICE PROPERTY
REVELSTOKE M.D.

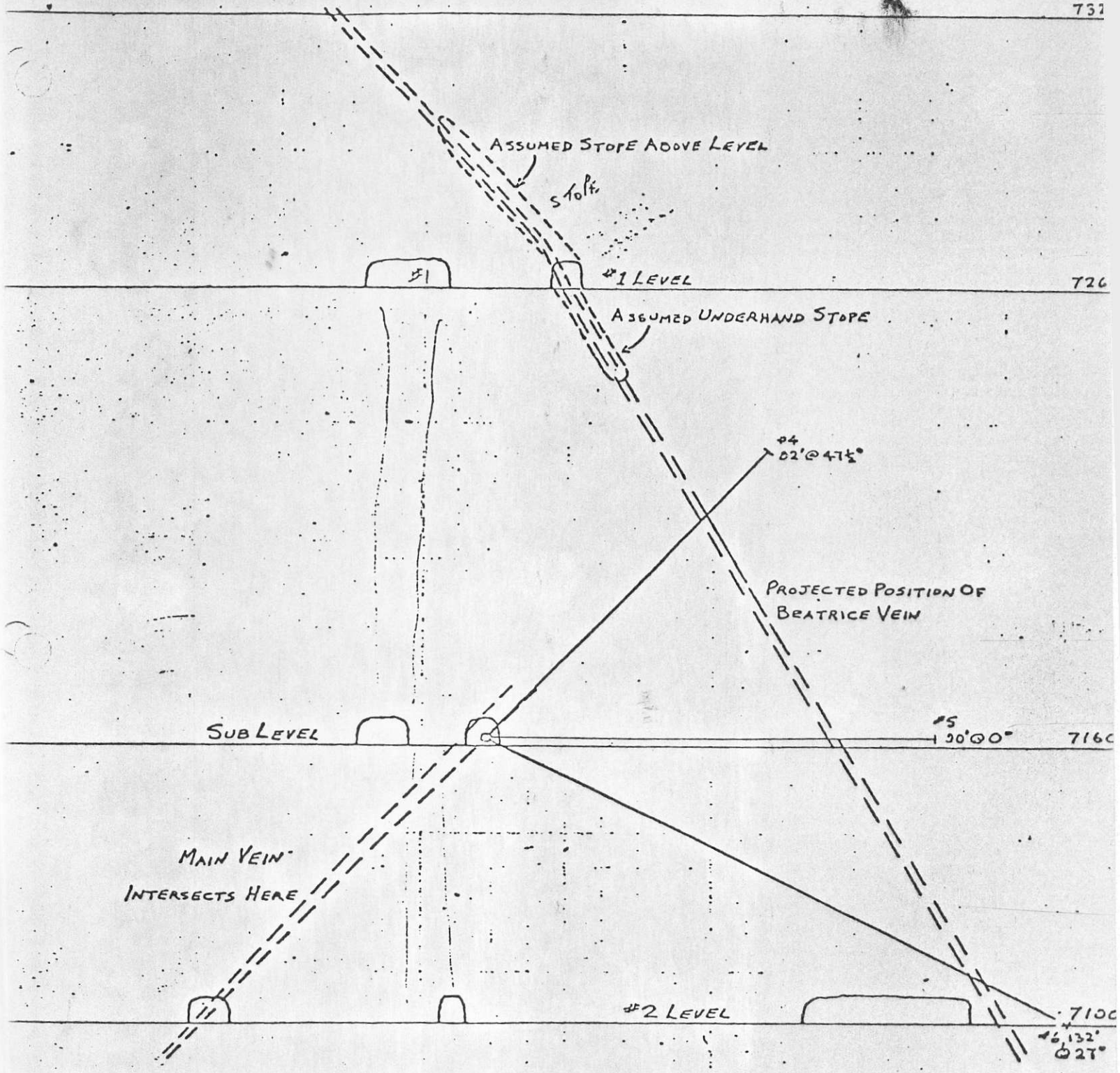
1" = 30' SEPTEMBER 8, 1964
K. D. Sanders, P. ENG.



DAKOTA SILVER MINES LTD.
SECTION # 1

SHOWING PROPOSED DRILL HOLES ON BEATRICE VEIN
BEATRICE PROPERTY
REVELSTOKE M.D.

1" = 30' SEPTEMBER 8, 1964
K. G. Sanders, P. ENG.



DAKOTA SILVER MINES LTD.
SECTION #3

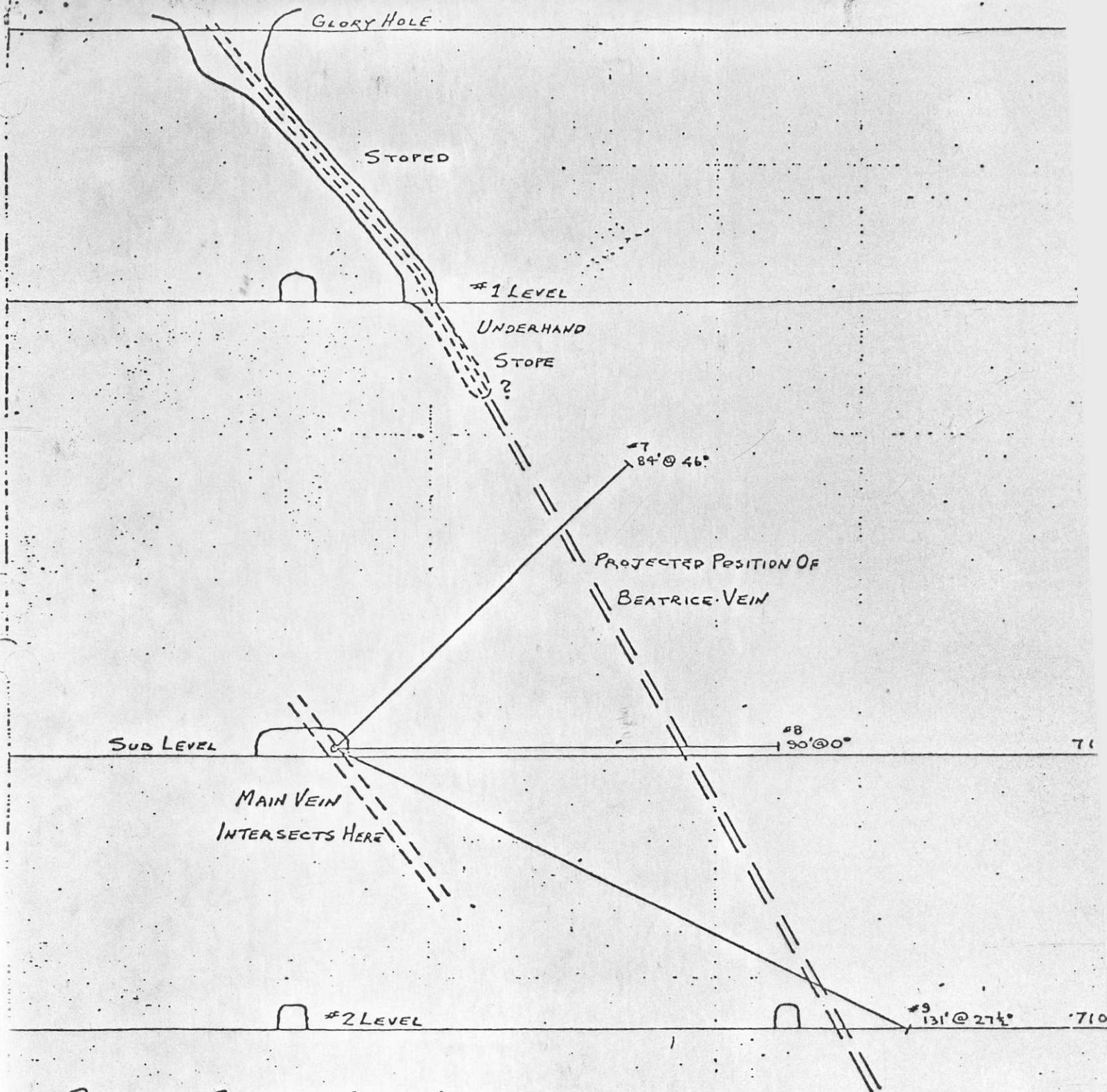
SHOWING PROPOSED DRILL HOLES ON BEATRICE VEIN

BEATRICE PROPERTY

REVELSTOKE M.D.

1" = 30' SEPTEMBER 8, 1964

X. D. Sanders, P. ENG.



DAKOTA SILVER MINES LTD.
 SECTION #4
 SHOWING PROPOSED DRILL HOLES ON BEATRICE VEIN
 BEATRICE PROPERTY
 REVELSTOKE M.D.
 1" = 30' SEPTEMBER 8, 1964
 K. D. Sanders, P. ENG.