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INFORMATION REPORT

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COUNTRY	Bulgaria	REPORT	
SUBJECT	The "Borieva" Lead-Zinc Mine	DATE DISTR.	30 July 1954
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This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

1. The "Borieva" mine of the Madan mining basin is located about six kilometers south of Madan village (N 41-30, E 24-57), about one kilometer south of the "Konaki Dol" mine and about two kilometers north of the "Petrovitza" mines. The Zlatograd-Borieva-Madan-Chepelare road runs through the mine area.
2. The "Borieva" mine has four shafts:
 - a. "Borieva" shaft;
 - b. "927" shaft;
 - c. "1013" shaft; and
 - d. "1044" shaft.
3. The numbers by which the last three of these shafts are identified are actually their heights above sea level. The last three shafts are located on the same hill, one right above the other, while the "Borieva" shaft is approximately one kilometer farther north.
4. A sketch of the layout of the "Borieva" mine is enclosed herewith as an Appendix, page 8. The legend for the sketch is on page 7.

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"Borieva" Shaft

5. This is an old shaft, opened for exploitation by the Germans. The shaft has the following galleries:
- Gallery "0," on the level of the ground surface; this is the main gallery, one of the longest of the mine; it winds to and connects with the "Krushev Dol" mine, and has a length of about two kilometers; and
 - Galleries "50," "100," "150," "200," and "250," at a depth of 250 meters from gallery "0," at every 50 meters; these are parallel, one under the other, and and named for their depth; [redacted] gallery "100"--exploited by the Germans--reaches and connects with the "Konski Dol" mine, over a length of about one kilometer. 25X1 25X1
6. Every one of these parallel galleries has many (longer or shorter) side shafts, which in turn are divided into shafts of their own for use in exploiting the various galleries. [redacted] all of the galleries, with the exception of the ones connecting with the "Krushev Dol" and "Konski Dol" mines, has an average of about 20 horizontal side galleries, from which branch off about three or four exploitation areas (from each of the side galleries). In contrast with all the other galleries, those of number "50" also have vertical shafts (number unknown) which are used in exploitation and which connect with gallery "100." [redacted] only gallery "50" has both horizontal and vertical exploitation. 25X1 25X1
7. The central galleries are about two meters high and two meters wide. The other galleries are about 1.5 meters high and about 1.2 meters wide. The branch galleries are even narrower, permitting the passage of only one mine car.
8. Ore is transported by the following means:
- In gallery "0," there is an electric tram line, receiving power from an overhead line, taking the current from two large generators; [redacted] the motor has an "unlimited" drawing capacity, since work is planned for the length of the line, which would be feasible only if the motor were not thus overloaded; the line in this gallery extends to the "Krushov Dol" mine; 25X1
 - In gallery "100," there is a small electric tip-cart with a motor furnishing its electric current through about 20 batteries, alternating periodically, wearing out after one shift; the line has two of these tip-carts, which means that if one is alternating, the other is going and returning; the electric tip-cart has a pulling capacity of about 20 carloads per trip; the line reaches and connects with that of the "Konski Dol" mine;
 - In the other central galleries, as well as in all the horizontal exploitation galleries, there are rail lines with hand-pushed carts;
 - All the little cars of the mine are identical, regardless of whether they are on the tram line, the motor-driven line, or the hand-pushed line; they have a capacity of about 0.80 cubic meters or, as informant stated, 1,000 kilograms;
 - The ore is raised to the entrance of gallery "0" by means of a double elevator which has two sections on each of the two elevator cars; when two of the sections are at the entrance to gallery "0," the other two are located at the other end of the line, i.e., the bottom gallery; the tram cars of the corresponding galleries are pushed into the sections and thus sent upward and successively returned; when the cars of one of the galleries are being trucked, others are unable to use the elevator;

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- f. Since the elevator shaft between galleries "200" and "250" had not been completed as of 15 October 1952, the elevator could not be utilized in gallery "250" (the lower level) and the ore was lifted out of this gallery into gallery "200" by means of a second-rate elevator, located about 50 meters from the central elevator (toward the interior); this elevator connects only galleries "200" and "250;" it does not have cars, but the mine cars loaded with ore are fastened in the elevator on hooks and thus drawn upward; from gallery "200" to the entrance of gallery "0," the central elevator described above is utilized; and
- g. The use of the elevator in gallery "50" is limited, since this gallery is exploited primarily by the vertical means and it is easier and handier to drop the ore into gallery "100" and there load it into the mine cars to be taken out along gallery "100" into the elevator and thus to the entrance of gallery "0;" for the horizontal exploitation of gallery "50," however, the central elevator is used directly.
9. The central elevator is located about 100 meters inside of the entrance to gallery "0." The central elevator, as well as the supplementary elevator, is powered by electric motors (capacity not known to informant).
10. From the elevator, the ore is taken by means of the tram line to the cable line station, located about 200 meters from the entrance to gallery "0," where it is emptied into the large bunkers. The bunkers are divided, to conform with the ore coming from the "Boeva," "Borieva," "Petrovitsa," "Konski Dol," and other mines. 25X1
 The bunkers have a sloped floor, with a flume and a door with a lever opening; the cars of the cable line run under the bunkers to be loaded with ore for transporting it to the flotation plant at Kurdzhali.
11. A steelyard in which every one of the cars is weighed, and where samples are taken from each of the cars, is located near the station of the cable line.
12. All of the galleries of the mine have electric lighting.
13. The ventilation of the galleries is effected by means of shafts--about three or four in number--going up to the summit of the hill.
14. The mine is equipped with three large "Simens" compressors, German, with a capacity of about 180 horsepower. These power the air hammers (approximately 50) which are used in excavating the ore.
15. Entrance into the mine is through a special old gallery which connects with gallery "0." Thus, the mine actually has two entrances--one for the tram line and one for the workers.
16. Approximately 420 persons work at the mine. Of these about 350 are Trudovaks and the other 70 are civilian workers--primarily master miners. Work is done in three shifts per day.
17. The civilian workers earn an average of about 1,000-1,200 leva (new currency) per month, while the Trudovaks are paid only 150-200 leva per month. Work is done by norms, with pay being given according to a percentage of completed work, both for civilians and for Trudovaks. The installation is operated by "Gorubso," which also pays the Trudovaks employed here. On 1 January 1953, however, the pay for work done by Trudovaks was discontinued, so that these Trudovaks (as the Trudovaks of other brigades throughout the country) now work without pay.

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18. The daily production of the mine, total for the three shifts, is about 320 tons of ore (or 400 carloads). The amounts of ore taken from the galleries is as follows, from greatest to least: "50," "150," "100," "200," "250," and poorest of all, gallery "0." The percentage of metal content, however, is identical (or almost identical) in all the galleries.
19. The ore extracted from this mine is primarily lead, with some zinc and pyrite. There are also traces of copper and silver. The general mineral content of the ore varies from a maximum of 15 percent to a minimum of 5-6 percent.
20. Generally, the ore taken out is classified as rich, and it is hoped that large and rich veins will be opened for exploitation so that these do not have to be worked as regularly as they are at present. However, the veins usually discovered are small and less productive, with the result that a large amount of time is lost in looking for new veins.
21. A workshop equipped with three lathes, two trimmers, milling machines, etc. in which Trudovaks of the technical platoon, civilian workers, and master miners are employed, is located adjacent to the mine.
22. The garage where the trucks used to transport ore from the other "Borieva" shafts and the "Konski Dol" mine to the cable station are housed is located near the station of the cable line. The garage has about 20 freight transport vehicles: "Opel," "ZIS," "Astroflat," "Ford," etc.

The "927," "1013," and "1044" Shafts

23. This is the other mine in the area of the "Borieva" mine, and in fact is three shafts, but since they are connected vertically, they will be considered as one mine in this report.
24. This mine has three locations, one gallery right above the other. The first of the galleries, "927," starts about 50 meters from the bottom of the hill. It is about 200 meters long. The second gallery, "1013," is located about 86 meters above the first gallery; it also has an outside entrance and is about 300-400 meters long. The third gallery, "1044," is located about 31 meters above the second gallery, and also has an outside entrance; informant did not know its length.
25. Each of the galleries has branch drifts, for horizontal exploitation. However, these are not well worked, since this mine is still new and has been in operation only since 1950.
26. In galleries "1013" and "1044," as well as in all the side drifts, there is a rail line on which hand-pushed cars run. Only gallery "927" has electric tip-cars of the type described for the "Borieva" mine (paragraph 8b above), by means of which all of the ore is brought to the surface.
27. The ore extracted from galleries "1013" and "1044" is dropped into gallery "927" by means of three or four vertical shafts, from where it is taken to the surface by means of the electric tip-cars. In front of the entrance to "927" is a platform on one end of which there is a concrete bunker into which the ore is dumped. This bunker holds about 30-40 carloads. It is of the same type as those at the cable line, except that instead of cable cars loading directly under it, trucks are used to transport the ore from here to the cable line station.
28. There are two compressors used in this mine, (Hungarian models (power not known), which operate about 10 air hammers. These arrived at the mine and were put into operation in May 1952.

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29. All the galleries of this mine are electrified, the power being supplied by the generating station at the "Borieva" mine.
30. A total of about 130 persons are employed at the mine. Of these, 100 are Trudovaks and 30 are civilian workers--primarily master miners. Work is done in three shifts.
31. The total daily production of the mine is as much as 200 carloads or 160 cubic meters of ore. The richest gallery is "927," followed by "1013" and then "1044."
32. The mineral content of the ore is of the same type as described above for the "Borieva" mine. This mine, however, is supposed to be richer in the amount of ore, since large new veins are often discovered, so that not as much time is lost in looking for new deposits as in the "Borieva" mine.

Recapitulation

33. The total underground work force in the four shafts of the "Borieva" mine ("1044," "1013," "927," and "Borieva") is about 450 Trudovaks and 100 civilian workers (master miners). The surface crew consists of about 150 Trudovaks and about 100 civilian workers, employed as technical personnel.
34. The project is operated by "Gorubso."

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35.

as of 15 October 1952, the "Borieva" mine still was only a small village inhabited by the miners and their families. The village had the following public buildings: School - kindergarten, large movie theater with cinema projector installed, reading room - cultural club, bath, two stores, and a restaurant.

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36. The total daily production of the mine was about 600 carloads, or about 480 cubic meters, of ore. The ore is primarily lead, with some zinc and pyrite, and traces of copper and silver. The mineral percentage is a maximum of 15 percent and a minimum of 5-6 percent.
37. The central station of the cable line to Kŭrdzhali is located at this mine. The ore from the neighboring mines is brought here for shipment to Kŭrdzhali.
38. The mine has Communist Party and DSNM (Dimitrovski Sŭyuz na Narodnata Mladezh; Dimitrov Union of the People's Youth) organizations for the civilian workers and for the Trudovaks. The paid general secretary of the BCP of the civilian workers at the mines was Andrey Mŭrdev

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Party organization at the mine has three additional secretaries--first, second, and third

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39. A Militia uchastŭk (Militia administration), consisting of about 30-40 Militiamen commanded by a Militia lieutenant and a Militia junior lieutenant, is located in Borievo. The men patrol the cable line, the cable line station, in front of the "Borieva" mine, and along the road; they also man ambushes somewhere in the surrounding hills. The posts on the road are for checking travellers, but usually only "doubtful-appearing" persons are checked.

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[redacted] 25X1

40. [redacted] administrative personnel at the mine [redacted] Dyadov (fnu). 25X1
chief director of the mines. [redacted] 25X1
[redacted] 25X1

41. At "Borieva," there are about 50 Soviets (about 15 families), who have appropriated the following: one large 3-story house, one villa, and one community dining room and kitchen. [redacted] the directors of the mines of the Kurdzhali mining basin are primarily Soviets. [redacted] 25X1
[redacted] 25X1
[redacted] accountants were almost all Soviets. 25X1

42. There is a geological group at the "Borieva" mine which carries out research and tests in the neighboring hills. [redacted] 25X1
[redacted] 25X1

43. The Trudovak podelenie working at the "Borieva" mine from 1 April 1952 until 15 October 1952 was Trudovak company 14-85 of Trudovak battalion 14-80 of the 1 Sofia Trudovak Brigade with headquarters in Chepelare village, Asenovgrad Okoliya.

44. In August 1952, construction was started on a new cable line from "Borieva" to Rudozem village. [redacted] 25X1
Construction was being done by East German specialists--engineers and technicians-- who also had administrative control of the old Borievo-Kurdzhali cable line. 25X1

45. In September 1952, the chief of the mine administration to which the "Borieva" mine is subordinate (not further identified), was the Soviet Kobalenko (fnu) [redacted] 25X1

[Large redacted area]

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LEGEND TO APPENDIX

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Cross-Section View of the "Borieva" Mine - October 1952

Scale 1:5,000.

I "Borieva" Mine.

1. Gallery No. "0."
- 1a. To "Krushov Dol" Mine.
2. Gallery No. "50."
2. Gallery No. "100."
- 2a. To "Konski Dol" Mine.
4. Gallery No. "150."
5. Gallery No. "200."
6. Gallery No. "250."
7. Central ore-transport elevator.
8. Second-class ore-transport elevator.
9. Station of the cable line to Kŭrdzhali.

II Other Mines.

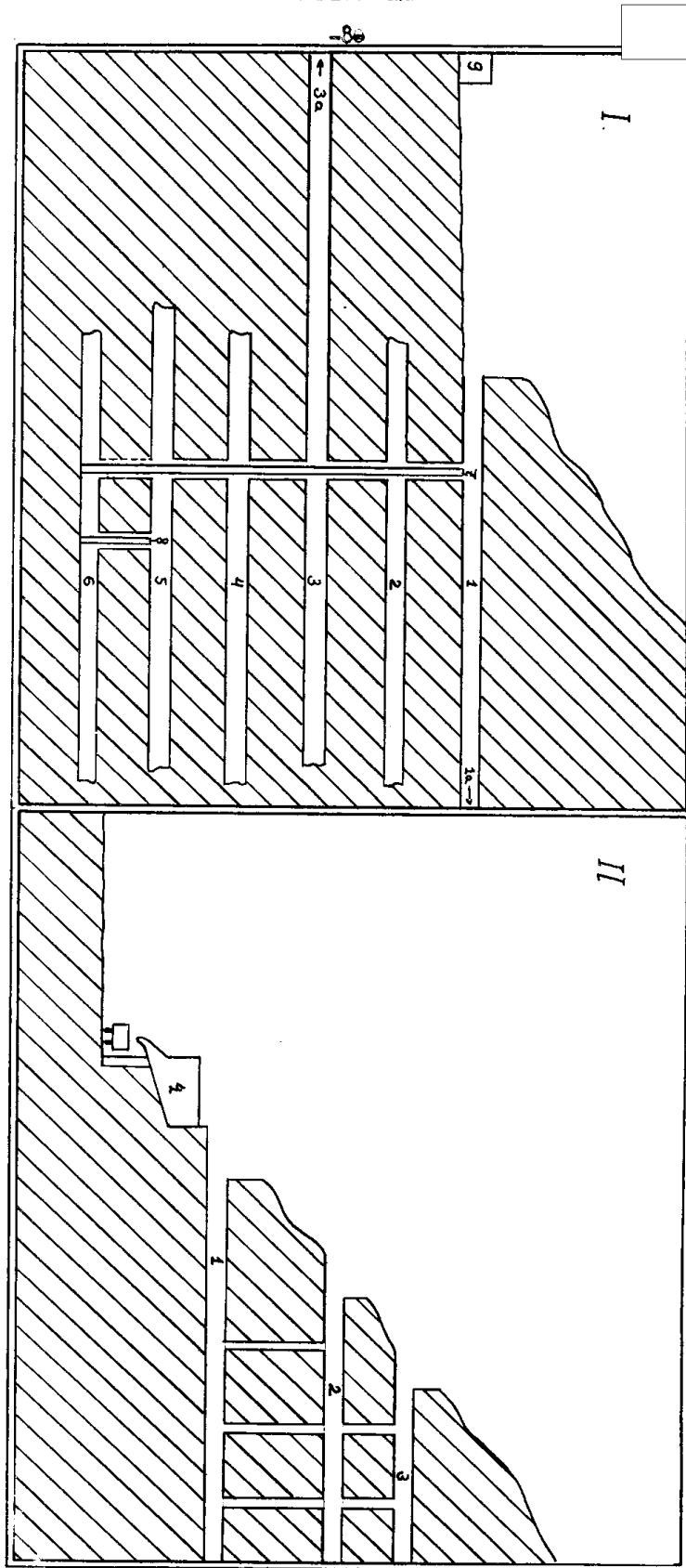
1. Shaft No. "927."
2. Shaft No. "1013."
3. Shaft No. "1044."
4. Concrete bunker for storing the ore.

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APPENDIX

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