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CENTRAL INTELLIGENCE AGENCY

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INFORMATION REPORT

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SECURITY INFORMATION

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2. ZAVOD No. 518 at SUME VODOSTROY

ZAVOD No. 518 is situated 5 to 7 km from REVDA on the REVDA - PERVOURALSK road. Travelling from REVDA, it lies on the left side of the road, with the settlement of SUME VODOSTROY on the opposite side, on the banks of the river CHUSOVAYA. The VODOSTROY itself also lies along this river. A very rough sketch of the location is attached to the Appendix as Annexe 1. This sketch is not to scale, but does give some idea of the general lay-out.

[redacted] the ZAVOD covers a fairly large fenced-in area about 1 1/2 km long and 500 to 800 metres wide. There was one large brick building inside this compound and the works were always guarded by military and civilian guards. At night, dogs were also used for guarding and were placed in 50-metre runs between wire fencing along the perimeter.

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The ZAVOD stands somewhat off the road, and in the area between the road and the works a small landing ground has been constructed. This is used practically every day by a small U.2 biplane (KUKURUZNIK) which is used chiefly as a transport aircraft (see below).

On the opposite side of the road a railway runs parallel to it, with a railway station for the SUME settlement and also locomotive sheds.

A little way north of the ZAVOD is the MEDZAVOD (mainly a copper smelting plant) [redacted]

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Both ZAVOD No. 518 and the MEDZAVOD were connected to the main railway line and several industrial sidings fanned out inside the two compounds. There was also an interconnecting siding.

(a) Production

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[redacted] this ZAVOD was producing various copper and brass pipes and tubes (TRUBY), as well as MEL'KHOROVYE (electro-plated) TRUBY for aircraft, tanks and motor vehicles. [redacted] this latter product was the most important: the pipes were silver in colour and the metal was soft, somewhat like lead.

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These MEL'KHOROVYE TRUBY were transported every other day, and sometimes daily if stocks were ready, by the U.2 biplane to an unknown destination. [redacted] on one occasion the Director himself flew to MOSCOW in this plane, taking with him

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samples of these pipes. And it was also known that the plane sometimes flew to NIZHNIY TAGIL'. Incidentally, this biplane had been presented to the Director of the ZAVOD as a special prize (EREMIYA) for services rendered.

During the war this ZAVOD was switched to the manufacture of cartridge and shell cases.

The MEDZAVOD worked in conjunction with No. 518 and was a copper smelting and re-melting plant. Besides the smelting of normal copper ore, old copper scrap was also delivered to this plant for re-melting. This scrap consisted mainly of old war material, including old shells. [redacted] in 1949, [redacted] some of this scrap was being re-melted, one of the shell cases exploded, destroying one of the furnaces. After this, a special part of the yard at the plant was allocated for these "suspicious objects", which were later taken away and exploded elsewhere.

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[redacted] although this plant was mainly working on copper, other metals were also re-melted here.

(b) Transport

With the exception of the aircraft service mentioned above, all supplies and deliveries to No. 518 and the MEDZAVOD were carried by the railway.

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[redacted] Neither was the CHUSOVAYA river used for any such purposes.

(c) Supplies of ore

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[redacted] most of the supplies of crude copper ore for the MEDZAVOD came direct by rail from DEKHTYARKA, which is about 15 kilometres SW of REVDA. DEKHTYARKA is on the same railway line as SUMZ and besides the copper mines there, [redacted] a fairly large tar (DYOGOT') producing plant exists.

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Some other copper supplies came from REVDA, [redacted]

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(d) Water supply

The main water supply for the two works came by a pipe-line from the nearby SUMZ VODOSTROY on the CHUSOVAYA River. There was another main source piped all the way from REVDA, from the large natural lake there. [redacted] there were two other sources with pumping stations, one somewhere north of the works in some marshy area and another to the west. [redacted] they were both connected to the works by pipe-lines.

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There was thus a continuous supply of water, even when some of these pumping stations (VODONASOSNYE STANTSII) were out of action.

(e) Settlement DOK

POSYOLOK DOK, south of the works on the road to REVDA, was a

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settlement belonging to the No. 518 Works and where most of the married workers and their families were billeted.

Most of them travelled by railway to work, but there was also a bus service organised by the ZAVOD.

3. SOLIKAMSK - CHUSOVAYA Branch of the PERM Railway. with industrial details

This railway line is officially known as the SOLIKAMSK Branch (SOLIKAMSKAYA VETKA) of the PERM Railway (PERMSKOY ZHELEZNOY DOROGE). It is a single track with a fair number of passing loops at stations and halts, and is of the normal Russian gauge (5 feet). With the exception of the section from UTYS to CHUSOVAYA, the railway runs through difficult mountainous country, where a second track could be built only with great difficulty and expense.

The railway from MOLOTOV (PERM) to CHUSOVAYA Junction and then to SOLIKAMSK is electrified throughout, using the normal overhead system. Electric locomotives (ELEKTROVOZY) are used for both passenger and goods work, but quite a number of steam locomotives are still in operation and are also available in case of current failures, which frequently occur in the summer months during the thundery period.

The automatic block system of signalling is now in operation from CHUSOVAYA to KIZEL and the ordinary semaphore (manual) from KIZEL to SOLIKAMSK. Equipment for the conversion of the KIZEL - SOLIKAMSK stretch to the automatic block system has been ordered but not yet delivered.

Traffic consists chiefly of long heavy goods trains, carrying mainly coal. There are also a very limited number of passenger trains for local service as well as fast (SKORYY) traffic to MOLOTOV (PERM).

(a) SOLIKAMSK Station

SOLIKAMSK Railway Station is fairly large, with eight tracks and sidings, and is the northern terminus of the SOLIKAMSK - CHUSOVAYA Branch Railway. It possesses the only brick-built station building on this branch; all other stations still have wooden buildings.

A locomotive shed exists at this station and is used for both electric and steam engines. Coal and water supply.

Signal boxes for the manual semaphore system in operation.

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Annexe 2 to this Appendix gives the track lay-out of this station and sidings leading off to other points.

At the northern end of the station three tracks lead off,

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(1) This line leads to about 6 works situated in the town of SOLIKAMSK itself. [redacted] a smelting

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plant where old tanks (military vehicles) were melted down (PERELIVKA). There was also a large Chemical Works surrounded by a fence, which had about 6 chimneys within the area with numerous interconnecting pipes of various lengths and sizes. To work at these Works was considered dangerous by the local population owing to some poisonous fumes there. The labour employed at these Works was practically entirely forced labour from the numerous concentration camps (ITL) surrounding the town of SOLIKAMSK. [redacted] there were some salt mines nearby and factories processing the salt. [redacted]

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50X1-HUM

- (2) The destination of this track is unknown [redacted]
- (3) This siding proceeded into some woods nearby [redacted]
- (4) A dead-end siding (TUPIK) used for loading and unloading of material and stores for the various factories and works in this area. Food supplies for the numerous forced labour camps were also unloaded here.
- (5) A siding leading to the Soda Works. These works were surrounded by a barbed wire fence and were guarded by soldiers with red shoulder-boards. Dogs were also employed for guarding. [redacted]
- (6) Main line track south to CHUSOVAYA.

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50X1-HUM

[redacted] SOLIKAMSK is at the 27 km post from USOLSKAYA Railway Station, where the km post measurement from CHUSOVAYA ends (at 206 km post) and a new numbering begins as far as SOLIKAMSK.

(b) USOLSKAYA Station

About 4 km before reaching USOLSKAYA a new line branching off to the NE is now under construction. [redacted] this new railway will go to KIROV (?).

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This large railway station is the official station for the town of BERZNIKI. It possesses a wooden passenger station, locomotive and waggon sheds, coal and water supply and signal boxes for the manual semaphore system in operation.

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Annexe 3 gives the track lay-out of this station [redacted] with the following points of interest marked thereon:-

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- (1) A siding leading to some works or factory. [redacted]
- (2) A short siding used by the railway maintenance unit (PUTREM).
- (3) A short spare siding.
- (4) Main line to SOLIKAMSK.

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- (5) Double track leading to SOLIVARNI.
- (6) Siding leading to the BEREZNIKI "Soda" Works.  
 [redacted] these works are some way away from this station, are very large, and stretch to SOLIVARNI Station. Although they are known locally as Soda Works, [redacted] the manufacture of soda was only part of their function.  
 [redacted] Opposite the works on the other side of the railway there were several large tanks which [redacted] were for storage [redacted]. A pipe-line also led away from these works across the railway to some small works in the distance. This pipe was built [redacted] off the ground. These works were guarded by soldiers and forced labour was employed. [redacted]  
 [redacted]
- (7) A special siding used entirely by trains [redacted] that arrived periodically for the "Soda" Works.
- (8) Railway [redacted] sheds. 50X1-HUM
- (9) A new goods station and sidings under construction.
- (10) Main line to CHUSOVAYA.
- (11) A siding leading to a works or factory. [redacted]  
 [redacted] 50X1-HUM
- (12) Coal dump for steam locomotives. The Public Baths are situated nearby. [redacted] a new passenger station will be built in this area and will connect with the main line in the neighbourhood of the new goods station now under construction. 50X1-HUM
- (13) A track triangle used for turning locomotives as there is no turn-table at this station.
- (14) Sheds for electric and steam locomotives.

Soon after leaving USOLSKAYA there is a small steel bridge over a stream.

The branch line that leaves USOLSKAYA Station at (5) (on the Annexe 3 track lay-out) and proceeds NW to SOLIVARNI is shown as double-tracked, but only one track is used for direct traffic and the other is an industrial line belonging probably to the "Soda" Works.

SOLIVARNI is a port on the river KAMA and a jetty is situated not far away from the railway station. [redacted] iron ore being loaded into barges for transport further up the river KAMA.

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Annexe 4 represents the track lay-out of SOLIVARNI station:-

- (1) A spare siding.
- (2) The destination of this track is unknown  50X1-HUM
- (3) To the river jetty.
- (4) Siding to the "Soda" Works which are about 150 metres away. This line  also connects with a salt mine. 50X1-HUM

(c) DURIMANY Halt 50X1-HUM

A small halt between BEREZNIKI and SHISHI, not marked   This is only a passing loop and one siding (Annexe 5).

- (1) Main line to SOLIKAMSK 50X1-HUM
- (2) Siding
- (3) Main line to CHUSOVAYA.

(d) SHISHI Halt

A halt with three loop lines and a siding. Annexe 6:

- (1) A siding used for loading timber which is brought here by  tractors from the nearby forests. 50X1-HUM
- (2) Main line to SOLIKAMSK.
- (3) Main line to CHUSOVAYA.

(e) LYUZEN Halt

A small halt with a passing loop and one siding. Annexe 7:

- (1) Main line to SOLIKAMSK
- (2) Main line to CHUSOVAYA
- (3) Siding to Transformer Station.

(f) YAVVA Station

A small station with five loop lines and sidings. Water supply, tower and filling-up point at the SOLIKAMSK end of the tracks. A small steel flat bridge over the YAVVA just before reaching the station.

Annexe 8:

- (1) A siding leading to Wood Finishing Works, general carpentry and prefabricated houses (Finnish type).
- (2) Main line to SOLIKAMSK.
- (3) Spare siding.

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- (4) Another spare siding.
- (5) Main line to CHUSOVAYA.
- (6) A siding used for loading railway sleepers. They are also impregnated at this spot.
- (7) Siding to the SHEPALOREZKA, where railway sleepers are made.

The last two locations are outside the railway station area.

(g) VILVA Station

This station is composed of three loop lines and sidings. Water tower and filling-up point at SOLIKAMSK end of the tracks.

Annexe 9:

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- (1) This siding leads to a quarry where  rocks (SHCHEBEN) of various colours are mined.
- (2) Main line to SOLIKAMSK.
- (3) A siding where large glass bottles of acids in baskets were loaded and unloaded onto a narrow-gauge railway. Some of these bottles had labels with skull and cross-bones on them.
- (4) Main line to CHUSOVAYA.
- (5) and (6). Sidings to a quarry. The rock (SHCHEBEN) is taken by the railway to the Soda Works at SOLIKAMSK, SOLIVARNI and USOLSKAYA.
- (7) A siding used for shunting.

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(h) KOPI Station

A station with four loop lines and two sidings, also a branch line to LUNEVKA. Water tower and point at the CHUSOVAYA end of the station.

KOPI Station is the official station for the town of ALEKSANDROVSK, which lies to the north.

Annexe 10:

- (1) Main line to SOLIKAMSK.
- (2) Siding to Transformer Station.
- (3) Main line to CHUSOVAYA.
- (4) Branch line to LUNEVKA, about 8 km away, a small settlement where a quarry and a brewery are located.  the material mined SHCHEBEN.

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- (5) Sidings to three works. Small electric locomotives and waggons for mines are produced here. Also small lathes (STANKI). Most of the items produced by these three works [redacted] already packed in wooden crates and loaded onto open platform railway [redacted] two to three crates [redacted].

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(i) RASIK Halt

A small steel bridge over a stream just before entering this halt from the north. This halt consists of three loop lines and a siding.

Signal box for the manual semaphore system in operation. Single type of semaphores in use here on each of the tracks and operated by the box at the SOLIKAMSK end of the tracks.

## Annexe 11:

- (1) Main line to SOLIKAMSK.
- (2) Siding used for loading of timber by forced labour. Two large forced labour camps, one for men and the other for women, are situated close to this station.
- (3) Main line to CHUSOVAYA.

(j) KIZEL Station

A large passenger and goods station and the H.Q. of the SOLIKAMSK - CHUSOVAYA Branch of the PERM Railway.

This station possesses a locomotive shed, water and coal supplies and from here to CHUSOVAYA the signal system is entirely automatic block system (SVETOFORY).

## Annexe 12:

- (1) A coal train forming station called PREDKIZEL.
- (2) MYASOKOMBINAT, a meat factory producing various meat products, including sausages.
- (3) Shunting lines used only by coal trains.
- (4) Siding to four coal mines, including FRUNZE, LENIN and VOLODARSKIN Mines.
- (5) Further west of this point the RUDOREMONTNIY ZAVOD is situated. [redacted] it does produce aluminium cooking utensils and other metal ware.
- (6) Main line to SOLIKAMSK, with steel bridge over the road.
- (7) Locomotive turn-table.
- (8) Railway authorities' polyclinic.

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- (9) Maintenance office of the Railway.
- (10) and (11) Railway hostels.
- (12) KIZEL Railway Station.
- (13) BLOCKPOST: main signal box for the automatic block system in operation.
- (14) Railway Administration offices (UPRAVLENIE ZHELEZNOY DOROZI).
- (15) Railway communications office (KONTORA SVYAZI).
- (16) Five store houses along a siding.
- (17) Railwaymen's Club.
- (18) Main line to CHUSOVAYA, small bridge at the exit.
- (19) Siding used by the maintenance gangs (PUTREM).
- (20) Railwaymen's stores and shop.
- (21) Steel footbridge.

[ ] a lathe works (STANKOVY ZAVOD) is located outside KIZEL towards the next station, OBOGOTITEL. These works manufacture lathes and other machinery and are situated near a POSYLOK called DOMINNY UGOR.

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KIZEL station is at km post 113 from CHUSOVAYA, where the numbering begins.

(k) OBOGOTITEL Halt

This halt is 110 km from CHUSOVAYA and serves a settlement called KOSPOSH. The halt possesses 4 loop lines (5 tracks altogether), with two sidings.

## Annexe 13:

- (1) Siding serving several coal mines.
- (2) A siding to the Lathe Works (mentioned above). [ ] these works are being converted into a coking plant because the supply of metal for the manufacture of lathes is too far away from this area.
- (3) Main line to SOLIKAMSK.
- (4) Main line to CHUSOVAYA.
- (5) [ ]
- (6) Wooden passenger station building.

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(l) NYAR Halt

A halt with four passing loops and two sidings.

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## Annexe 14:

- (1) A short spare siding.
- (2) Main line to SOLIKAMSK.
- (3) Siding connecting four coal mines and a settlement (POSYOLOK).
- (4) Main line to CHUSOVAYA.
- (5) Wooden passenger station building.

This halt is 104 km from CHUSOVAYA.

(m) POLOVINKA Station

this station served a small town called UGLEURALSK. It possesses five passing loops and three sidings, and a new branch line to MOLOTOV still under construction.

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## Annexe 15:

- (1) Main line to SOLIKAMSK.
- (2) The new branch line to MOLOTOV under construction, which is expected to be opened this year. Goods traffic was supposed to be operating on this new line last year, but owing to heavy falls of earth at several newly-built cuttings it was found impossible to bring this line into operation. This new line has been built entirely by Soviet Army Engineer Units (Railway Troops).
- (3) An unloading ramp next to a store house (9).
- (4) Wooden passenger station building.
- (5) Siding serving a number of coal mines.
- (6) Main line to CHUSOVAYA.
- (7) This station is being enlarged and new tracks are being laid in this area.
- (8) Siding leading into the forest where forced labour were loading timber.

The station has a water tower and filling-up point for the steam locomotives.

(n) NAKLONNYY Halt

A small halt with one passing loop and a new industrial siding under construction.

## Annexe 16:

- (1) An industrial siding under construction and not connected to the main line yet. It will lead to 18 coal mines which are now being opened up and will be in operation in 1954-55.

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- (2) Main line to SOLIKAMSK
- (3) Wooden passenger station building.
- (4) Main line to CHUSOVAYA.

(o) GUBAKHA Station

A large station with 12 tracks and a side line leading to the ZAVOD KOKSOKHEM.

This station is officially known as Lower GUBAKHA Station and possesses a BLOKPOST, locomotive sheds and coal and water supply.

## Annexe 17:

- (1) Sheds for electric locomotives (ELEKTROVOZOV).
- (2) VAGONOLOVITEL. [redacted]  
[redacted] the railway line coming in from the CHUSOVAYA direction is very "bumpy" and badly laid and maintained with a number of "humps" in it. When heavy coal trains pass over this section [redacted] owing to these "humps" frequently become un-coupled and for safety are then diverted to this dead-end siding (TUPIK). [redacted]  
[redacted]  
[redacted]
- (3) A siding leading to several coal mines about 4 km away.
- (4) Main line to CHUSOVAYA.
- (5) Wooden passenger station building with two platforms.
- (6) BLOKPOST, main signal box for the automatic block system in operation.
- (7) The GUBAKHA ZAVOD KOKSOKHIM and the GRES on the river KOS'VA. A private siding leads from the main line to the ZAVOD, where it fans out into six industrial sidings, inside this large complex. The ZAVOD is a chemical and coking plant producing various by-products from coal, including saccharine. It is a large brick-built complex of several buildings with 2 or 3 square-shaped cooling chimneys. The KIZEL GRES is a hydro-electric power station on the river KOS'VA and adjoins the Chemical and Coking Plant. This is the largest power station in this area and is supplied with coal from the numerous coal mines in this district. The electric power produced is supplied to the local industrial enterprises, to the electric railway system and for general use in the towns and settlements.
- (8) Main line to SOLIKAMSK.

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(9) This siding leads to 2 or 3 coal mines situated by the river KOS'VA.

(10) This line leads to the Upper GUBAKHA Station, about 1 km away towards SOLIKAMSK, and serves three coal mines located there.

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A short distance south of GUBAKHA Station the line crosses a two-span steel bridge over the KOS'VA river.  all bridge spans used on this railway were of a standard length.

(p) KOS'VA Halt

A small halt with two passing loops and a siding to a coal mine. There used to be a third loop line, but it is no longer in use and the points at both ends have been removed.

Annexe 18:

- (1) A siding leading to a coal mine.
- (2) Main line to SOLIKAMSK.
- (3) Main line to CHUSOVAYA.
- (4) Wooden station building.
- (5) A disconnected passing loop no longer in use.

(q) NAGORNAYA Halt

A halt with four passing loops (five tracks altogether) and two sidings.

Annexe 19:

- (1) A short siding used for cleaning and maintenance of locomotives.
- (2) Sidings to local coal mines.
- (3) Main line to SOLIKAMSK.
- (4) Main line to CHUSOVAYA.
- (5) Water tower with filling-up point at X.

(r) RAZVEDKA Halt

This used to be a halt with two passing loops, but they have been disconnected and the points taken away. At present there is just one main track; the other two are covered with weeds, and will in due course be removed altogether. No track lay-out is annexed for this disused halt.

(s) US'VA Station

A small station with six tracks and four sidings.

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## Annexe 20:

- (1) Main line to SOLIKAMSK.
- (2) Siding used for loading and unloading.
- (3) A store house next to (2).
- (4) Wooden station building with one platform.
- (5) Main line to CHUSOVAYA.
- (6) A siding to a coal mine lying very close to station. 50X1-HUM  
 this mine was opened up before the Revolution.
- (7) A new siding leading to an area where 23 new coal mines are in the process of being opened up. This should be completed within the present Five-Year Plan, i.e. by 1955.
- (8) Siding to a transformer station.

South of this station there is a two-span steel bridge over the river US'VA.

(t) MAKHOVATNYA Halt

This is another disused halt. At present there is only one main track and the passing loops have been removed. A short siding to a transformer station.

This halt is usually called MAKHOVATKA by the locals.

No track lay-out has been annexed for this halt.

(u) BASEK Halt~~BASEK~~

A small halt with a passing loop. Two other loop lines have been disconnected and points removed.

## Annexe 21:

- (1) Main line to SOLIKAMSK.
- (2) Main line to CHUSOVAYA.
- (3) Two disconnected passing loops due to be removed altogether.

(v) BASKAYA Station

This station possesses eight tracks, several sidings and four shunting sidings for coal trains. It serves the local coal mines and a settlement called GREMYACHI.

## Annexe 22:

- (1) Siding leading to a coal mine.

/(2).....

SECRET

SECRET



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APPENDIX B

- (2) Siding to a locomotive shed for 3 or 4 locos.
- (3) This siding serves a number of coal mines.
- (4) Main line to SOLIKAMSK.
- (5) A short siding where a number of carriages belonging to maintenance gangs (PUTREM) are stationed.
- (6) Water tower with filling-up point at X.
- (7) Main line to CHUSOVAYA.
- (8) Shunting lines used by coal trains.

(w) ZAGOTOVKA Halt

A small halt with a passing loop line and three sidings.

Annexe 23:

- (1) A siding where the electricians (KONTAKTNIKI) maintaining the electric railway have a small depot and workshops. Their DREZINA (railway inspection trolley) with a ZIS engine on it is parked here.
- (2) Main line to SOLIKAMSK.
- (3) A short siding used once weekly by the VAGON-LAVKA, a visiting mobile shop for the railway staff. This [redacted] shop moves all along the line and supplies the railway staff with shopping facilities.
- (4) Main line to CHUSOVAYA.
- (5) A siding into the forests. [redacted]

50X1-HUM

50X1-HUM

[redacted] a transformer station lies 3 to 4 km before reaching ZAGOTOVKA from KIZEL.

(x) UTYOS Station

A small station with a total of five tracks and two sidings.

Annexe 24:

- (1) Main line to SOLIKAMSK.
- (2) A tunnel 1.25 metres long north of the station, but further away than drawn on this Annexe.
- (3) A siding outside the station to a gypsum quarry.
- (4) A siding used for unloading of gypsum brought by rail from (3) for the Alabaster Works located here.
- (5) Main line to CHUSOVAYA.

/(6).....

SECRET



50X1-HUM

SECRET



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APPENDIX B

(6) Siding to transformer station.

(7) Alabaster Works (kilns).

(y) ANTABARY Halt

A large halt with seven tracks and a short siding.

Annexe 25:

(1) A short siding used by maintenance gangs (PUTREM).

(2) Main line to SOLIKAMSK.

(3) Main line to CHUSOVAYA.

This station is at 10 km post from CHUSOVAYA.

On leaving this station towards CHUSOVAYA a small concrete bridge over the CHYORNAYA River is passed.

(z) CHUSOVAYA JUNCTION Station

50X1-HUM

[redacted] this important railway junction as it was outside the SOLIKAMSK Branch administration

50X1-HUM

[redacted] it was a large railway junction where the SOLIKAMSK Branch joined the main line of the PERM Railway going east and west. As already stated, the line is electrified to the west just beyond MOLOTOV (PERM) and also to the east [redacted]

50X1-HUM

This station possesses locomotive sheds, water and coal supply and a large number of sidings.

On the line to MOLOTOV the railway crosses the CHUSOVAYA River by a four-span steel bridge.

4. Signalling apparatus

As already stated above, the SOLIKAMSK Branch has the automatic block system (SVETOFORY) in operation from CHUSOVAYA to KIZEL and the normal semaphore (SEMAFOR) system from KIZEL to SOLIKAMSK. The latter section is due to be converted to the automatic block system in the near future.

Details of apparatus used

(a) Semaphores (SEMAFOR). Normal two-armed semaphores in use from KIZEL to SOLIKAMSK. At RASEK Halt all the passing loops are equipped with one-arm semaphores. On this section all clearances for trains are effected by the telephone by one duty man to another.



OPEN



SHUT

/(b).....

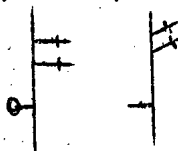
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APPENDIX B

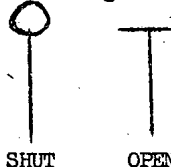
## (b) Discs (DISKI).



These discs are fixed to some of the semaphores about half way up the standard and on the opposite side to the arms. When visible they allow the train to proceed up to a station. Invisible, road open.

## (c) Warning discs (PREDUPREDITELNIE DISKI) are placed 500-700

50X1-HUM



before a semaphore and give the engine-driver the indication whether the semaphore beyond is open or shut. These discs are fixed on top of a separate standard and when visible mean that the semaphore is against the train (shut) and when flat it is open.

## (d) Warning shields (PREDUPREDITELNIE SHITY).



These shields are placed before the warning discs, and have one, two and three diagonal lines across them as one nears the warning disc.

## (e) Electric Signals (SVETOFORY), in operation between KIZEL and

CHUSOVAYA, are placed at about 1½-km intervals. It is a disc on a standard with four apertures for amber, green or red lights. The meaning of the combination of lights in use at present is as follows:



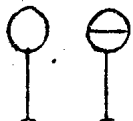
- One amber light = can move on main line, but with care.
- Two amber lights = track open to siding or passing loop.
- One green light = main line open.
- One red light = STOP.

## (f) Whistle sign (SIGNAL DAT').



This is an amber disc on a standard with a black letter C in the middle and the engine-driver must sound his whistle when passing this sign.

## (g) Warning signal, railway gangs working.



Before reaching a gang working on the line one comes across a yellow (amber) disc, which means that the train is entering the section where work is in progress. End of section is marked up with a similar disc but with a green line across.

The whole section of the SOLIKAMSK Branch is connected by telephone [redacted]. The telephone lines run parallel to the railway track, but a little off it, and being frequently close to the forest are periodically cut by falling trees during storms.

50X1-HUM

SECRET

/5.....

50X1-HUM

SECRET



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APPENDIX B

5. Locomotives in use

Although the entire SOLIKAMSK Branch is now electrified, quite a number of steam locomotives are still in use and also kept for emergency.

(a) Electric locos: Only one type of electric locomotive is in operation both for passenger and goods traffic. They are very powerful and possess twice the tractive power of the S.O. (SERGO ORDZHONIKIDZE) steam engines. They have a 0 - 6 - 6 - 0 wheel arrangement with two overhead pick-ups (PANTOGRAP). They possess six motors each, one for each axle. When pulling a normal load these locos have only the back pick-up raised, the other one is lowered flat on the roof. With heavy coal trains both pick-ups are raised and in operation. [redacted] each pick-up supplies current for three of the six motors.

50X1-HUM

[redacted] one of these locos pulling a coal train of 96 [redacted] which with steam requires 2 S.O. locomotives to perform the same work.

50X1-HUM

Electric locomotives are painted either green or blue. [redacted] the reason for having two separate colour schemes.

50X1-HUM

(b) Steam engines: Steam locomotives are still retained in fair numbers, probably owing to the insufficient numbers of electric locos as yet available and also as a stand-by in case of current failure which frequently occurs, especially in the thundery weather in the summer months.

The commonest steam engine in use is the S.O. (SERGO ORDZHONIKIDZE), a large and powerful but slow locomotive.

50X1-HUM

[redacted] it has a 2 - 10 - 2 wheel arrangement [redacted]

The other types in use were the S.U., a 2 - 8 - 2 passenger loco, and pre-Revolution locomotives (the "EMKA", OVECHKA" and "SECHYUKA"). The latter two were of 0 - 10 - 0 wheel arrangement with tender [redacted]

50X1-HUM

All passenger engines were painted green and goods locos black.

[redacted] they used to have quite a number of German goods engines in operation in this area, and converted to the Russian gauge. [redacted] they seem to have been type 50 or 52 of the German Railways, built during the war. In 1951 they were all transferred elsewhere, probably to some new railway line [redacted].

50X1-HUM

50X1-HUM

50X1-HUM

6. Passenger Train Service

(a) There is a daily fast (SKORYY POEZD) train between MOLOTOV and KIZEL, drawn by an electric loco.

(b) Also a daily passenger train (PASAZHIRSKIY POEZD) from SOLIKAMSK to MOLOTOV and vice versa. The two trains meet at UTYGS station at about 0400 hours. Electric traction. [redacted]

50X1-HUM

/(c).....

SECRET

50X1-HUM

SECRET

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APPENDIX B

(c) A slow electric train (DACHNYY POEZD) between CHUSOVAYA and SOLIKAMSK. Daily service in both directions.

(d) Five times in each direction between SOLIVARNI and YAVVA. A workman's train pulled by S.U. steam locomotive.

(e) Twice a day in each direction between KOPI and LUNEVKA. Locally called "the Express", pulled by an EMKA or OVECHKA steam engine or any other "old crock" available.

50X1-HUM

There used to be another fast train to MOLOTOV called MOLOTOVSKAYA STRELA [redacted] but it has now been cancelled.

50X1-HUM

7. Miscellaneous Informatic.

(a) Town of KIZEL

A rough sketch of the town plan is attached at Annexe 26 to this Appendix, and is self-explanatory. [redacted]

50X1-HUM

[redacted] the construction [redacted] to GUBAKHA was started in 1952 and should be completed within the present Five-Year Plan. i.e. by 1955.

There are some bus services run by the KIZEL UGOL and its mines for their workers, but no municipal transport service whatsoever. [redacted]

50X1-HUM

(b) Tractor Works at NIZHNIY TAGIL'

50X1-HUM

[redacted] a Tractor Works was situated at NIZHNIY TAGIL'; during the war it built tanks. [redacted]

50X1-HUM

(c) KAMA GES

A new hydro-electric power station has been under construction on the river KAMA and is due to be completed and put into operation within the present Five-Year Plan.

(d) Forced Labour

50X1-HUM

[redacted] on forced labour camps in this industrial area. [redacted] there were numerous camps, and especially around SOLIKAMSK. These political prisoners were employed at a number of works and factories, such as the Chemical Works at SOLIKAMSK and the "Soda" Works at BEREZNIKI, as well as on timber work in the forests.

50X1-HUM

The prisoners were of various nationalities [redacted] Finns, Estonians and others.

50X1-HUM

Up to 1950 many ex-VLASOVITES were also in this area, but they were all removed to an unknown destination.

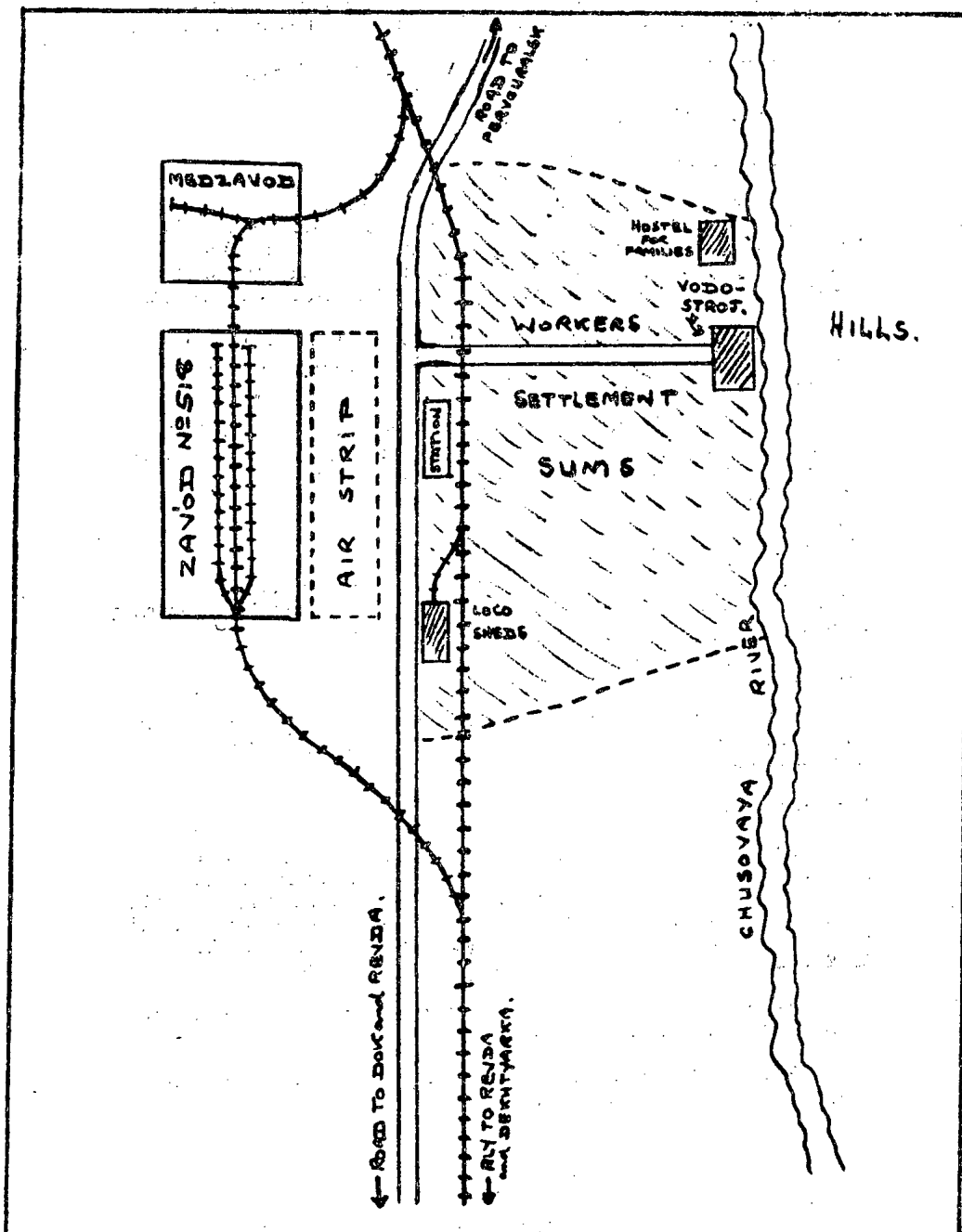
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ANNEXE 1 to APPENDIX "B"

50X1-HUM

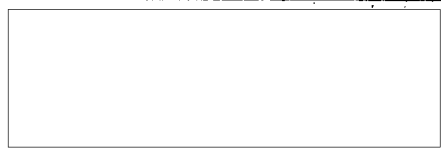
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SKETCH OF SUMB VOJBOSTROY.



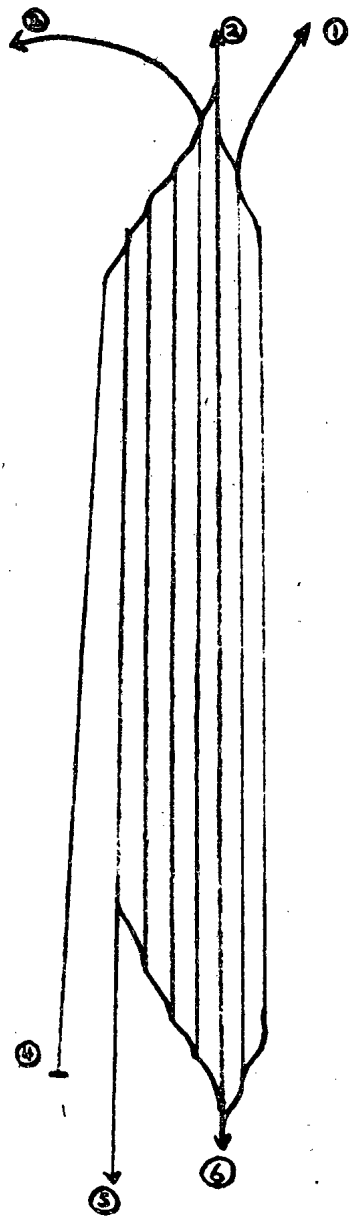
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ANNEXE 2 TO APPENDIX "B":



50X1-HUM

SOLIKAMSK RAILWAY STATION  
TRACK LAY-OUT.



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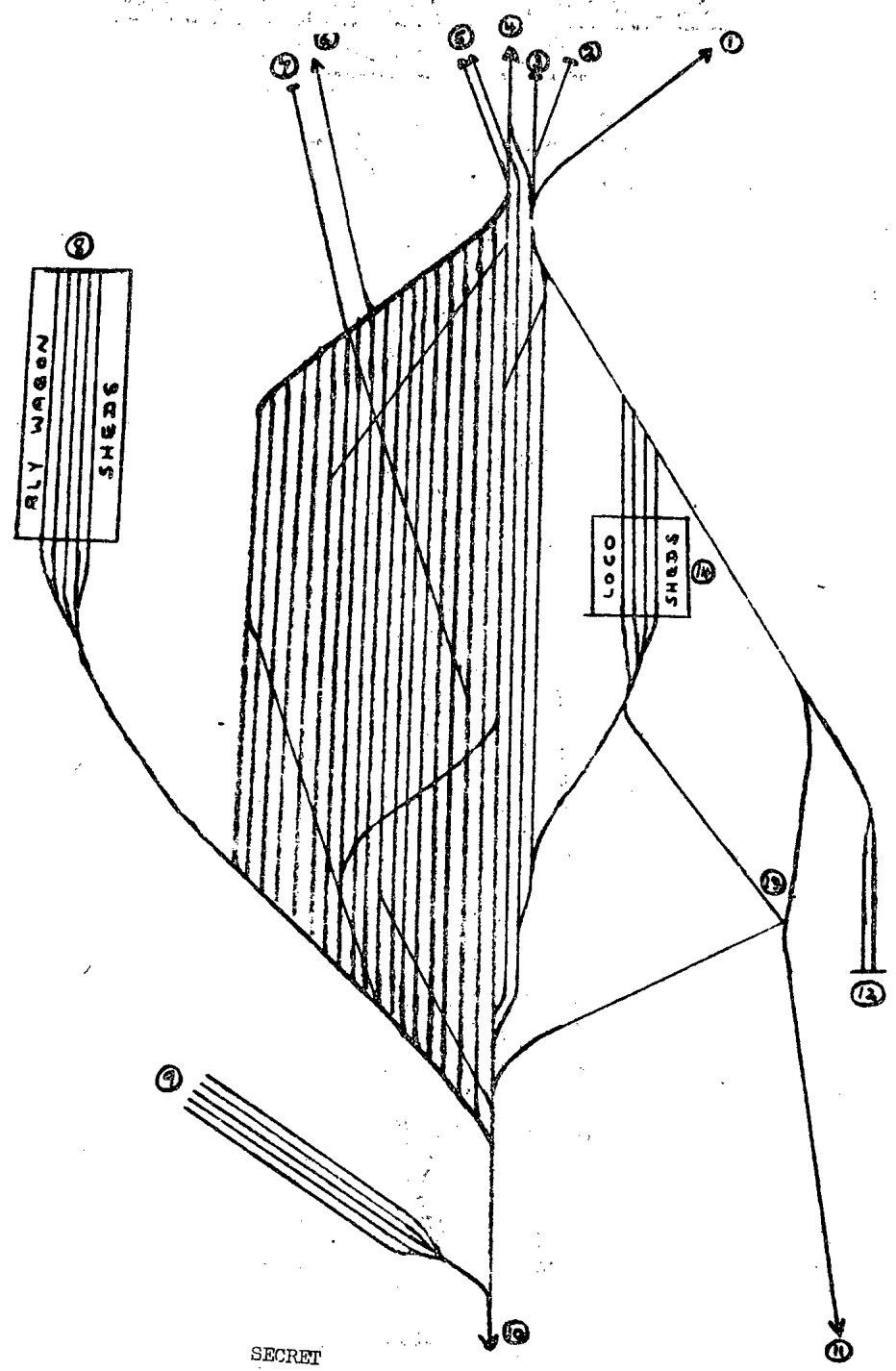
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ANNEXE 3 IS APPENDIX "B"



USOLSKAYA RAILWAY STATION  
TRACK LAY-OUT.



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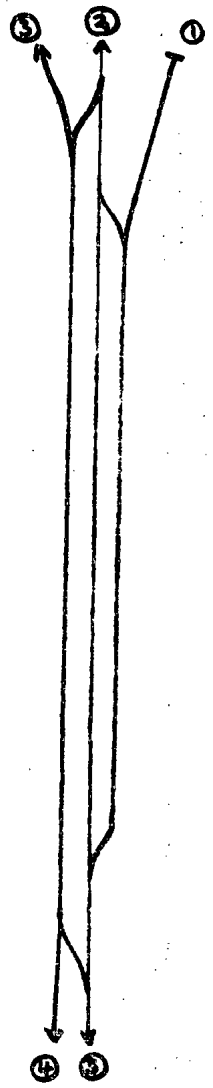
50X1-HUM

ANNEXE 4 IS APPENDIX "E"



50X1-HUM

SOLIVARNI RAILWAY STATION  
TRACK LAY-OUT.



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50X1-HUM

SECRET

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ANNEX 5 & APPENDIX "C"



50X1-HUM

DURYMANY HALT  
TRACK LAY-OUT.



SECRET

50X1-HUM

SECRET.

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ANNEXE 6 & APPENDIX "B".

50X1-HUM



SHISHI HALL

TRACK LAY-OUT.

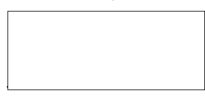
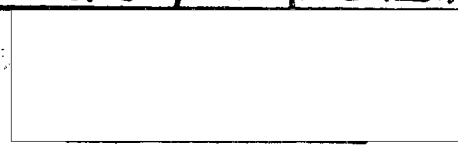


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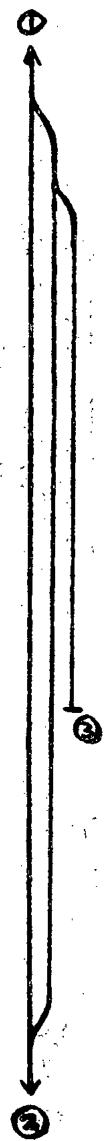
- 26 -

ANNEXE 7 to APPENDIX "B"



50X1-HUM

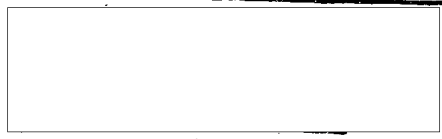
LYUZEN HALT  
TRACK LAY-OUT.



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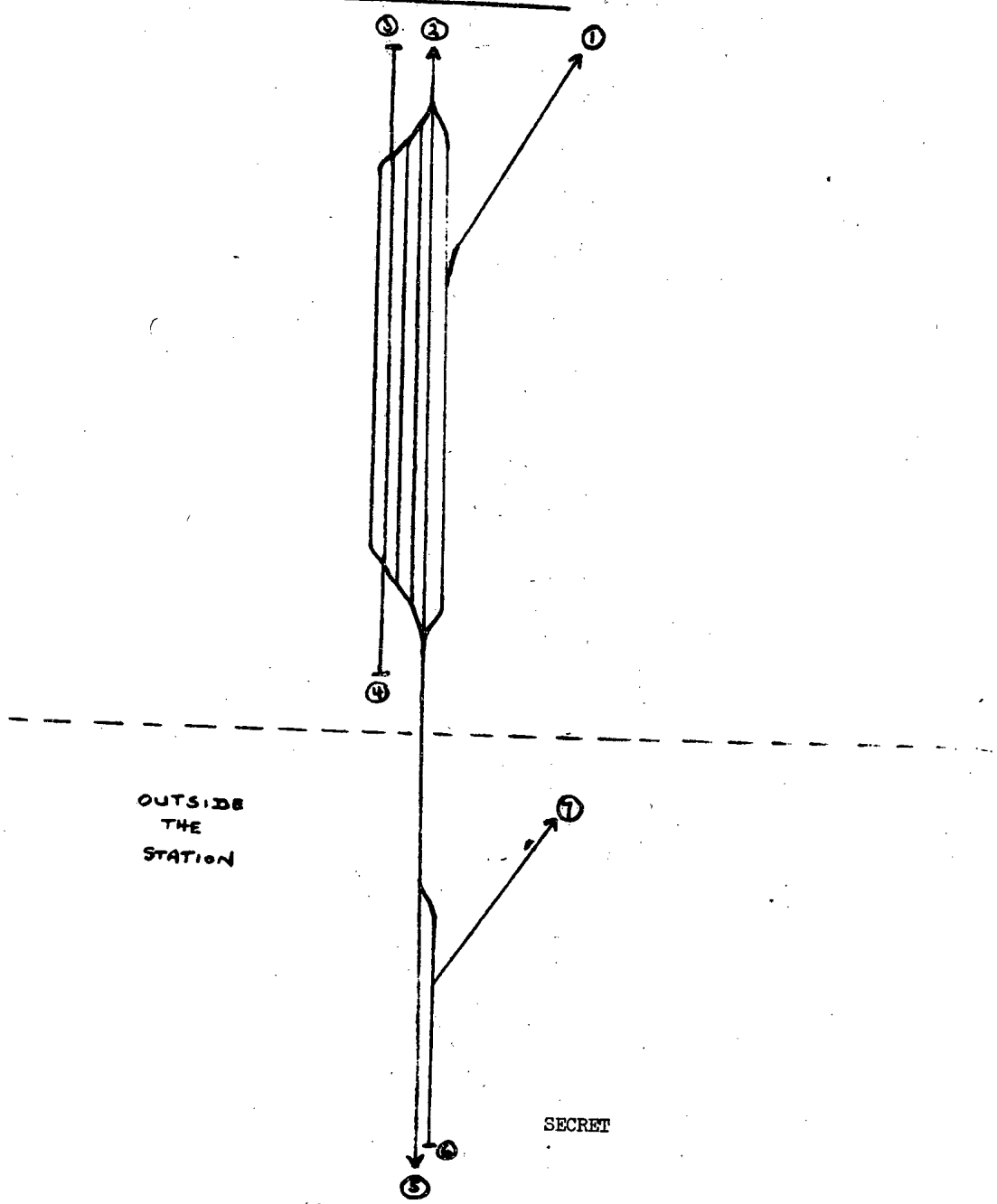
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ANNEXE 8 to APPENDIX "B"



50X1-HUM

YAYVA STATION  
TRACK LAY-OUT.



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SECRET

50X1-HUM

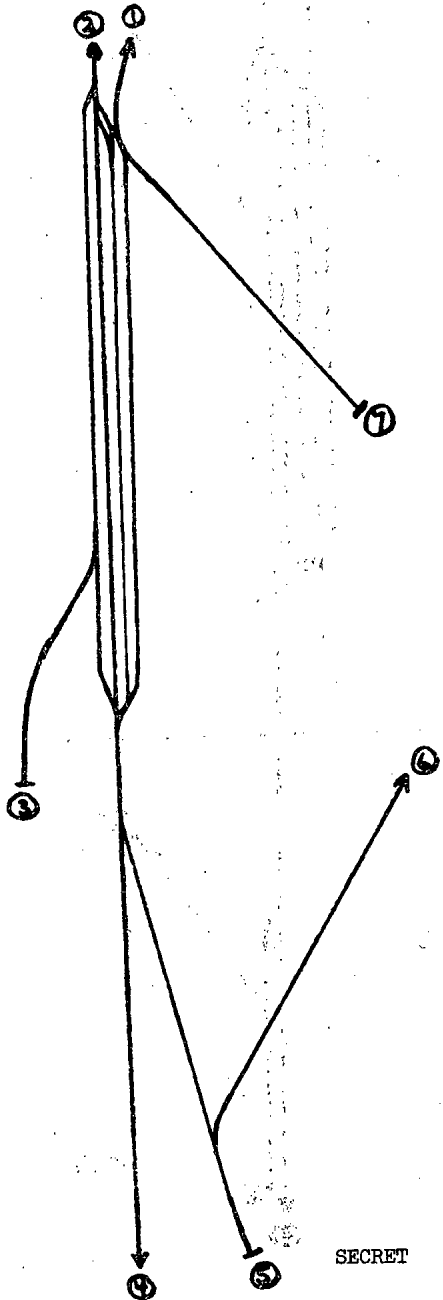
- 28 -

[Redacted] APPENDIX "B" [Redacted]

50X1-HUM

[Redacted]

VILVA STATION  
TRACK LAY-OUT.



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50X1-HUM

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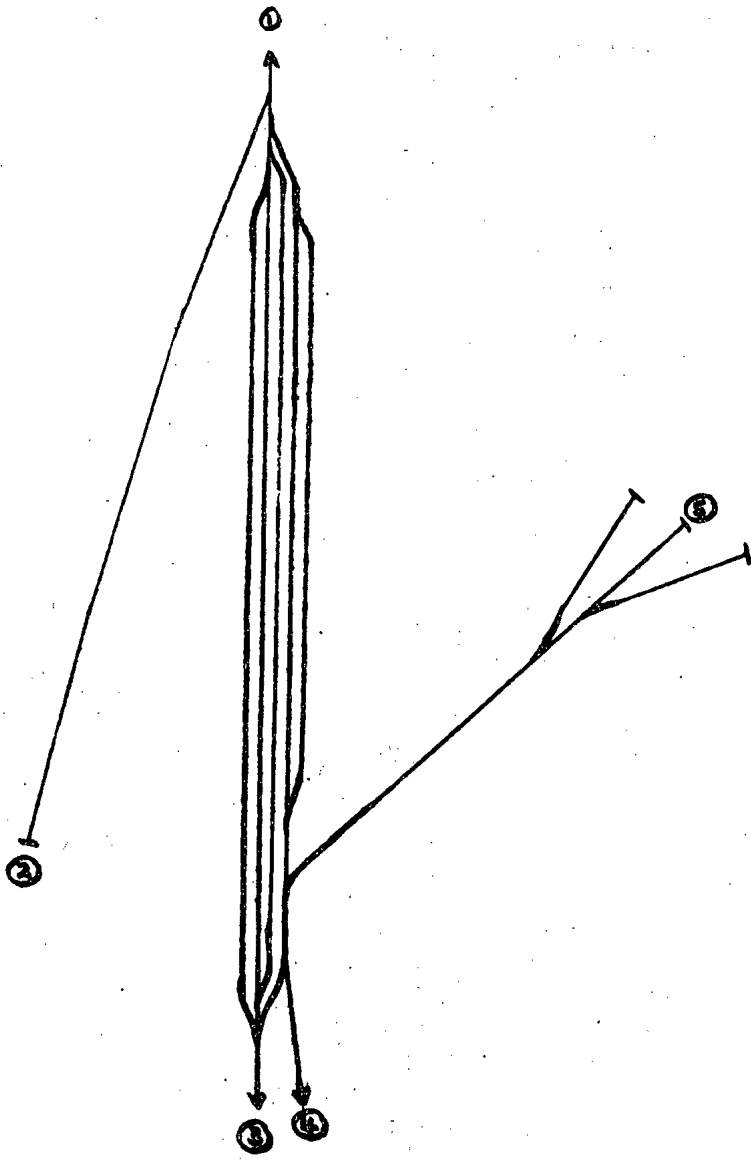
- 29 -

50X1-HUM

[Redacted] APPENDIX "C"

[Redacted]

KOPI STATION  
TRACK LAY-OUT



SECRET

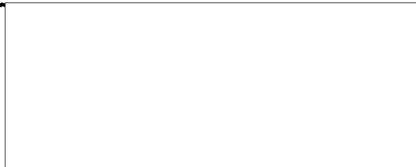
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SECRET

50X1-HUM



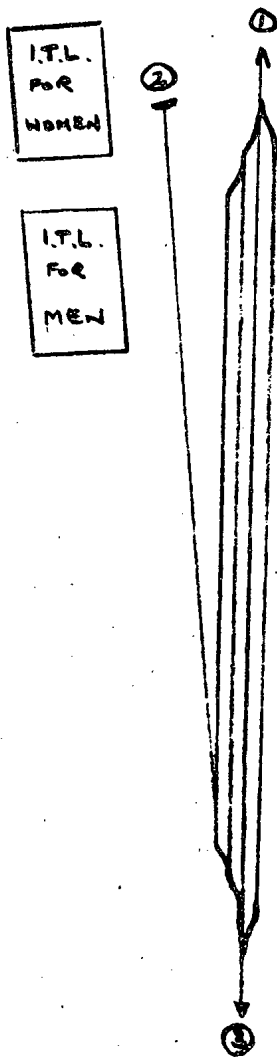
ANNEXE II IS APPENDIX "B"



50X1-HUM

RASIK HALT

TRACK LAY-OUT.



SECRET

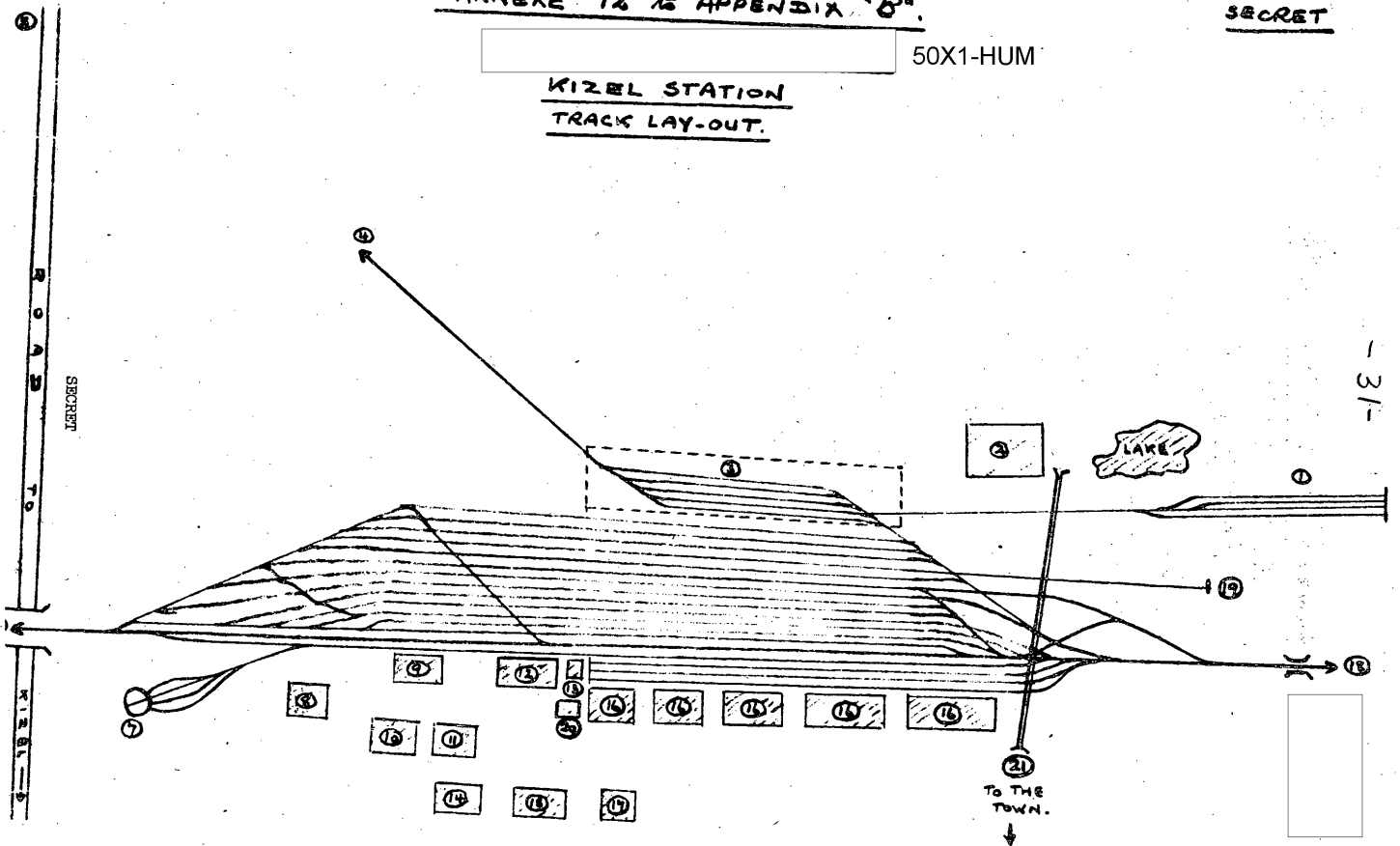
ANNEXE 12 IS APPENDIX 'B'

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[Redacted]

50X1-HUM

KIZEL STATION  
TRACK LAY-OUT.



50X1-HUM



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SECRET

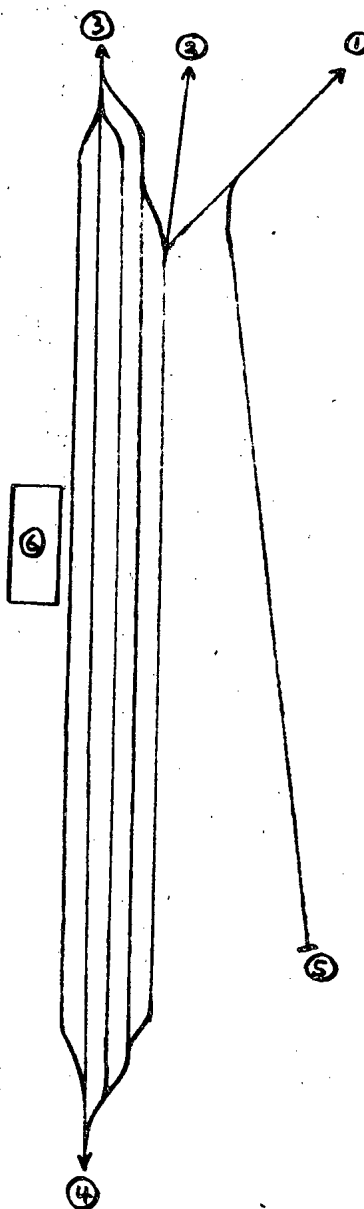
ANNEXE 13 5 APPENDIX "B".



50X1-HUM

OBOGATITEL HALT

TRACK LAY-OUT.



SECRET

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SECRET

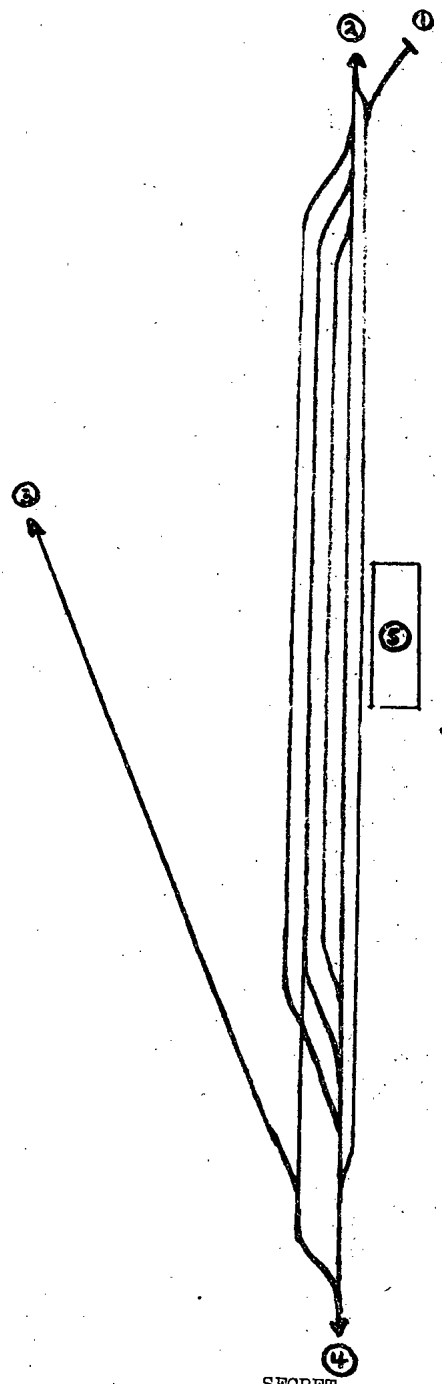
50X1-HUM

ANNEXE 14 IS APPENDIX "E"



50X1-HUM

NYAR HALT  
TRACK LAY-OUT.



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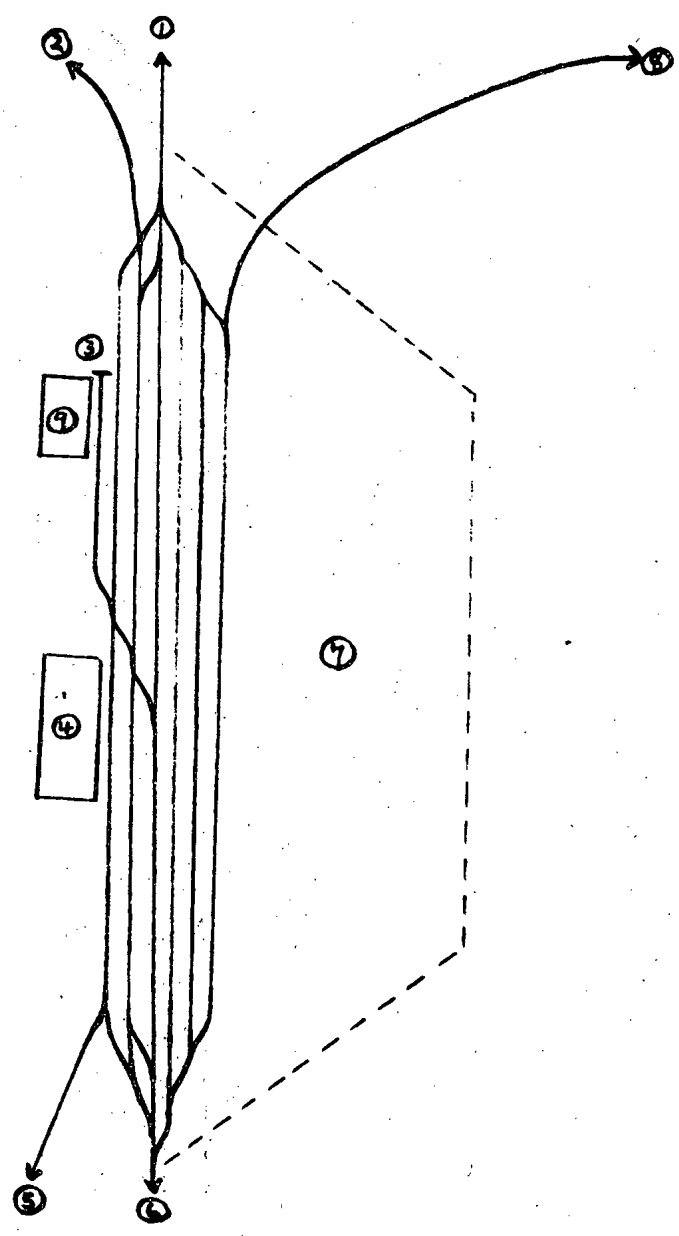
ANNEXE 15 to APPENDIX "B"



50X1-HUM

50X1-HUM

POLOVINKA STATION  
TRACK LAY-OUT.



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SECRET.

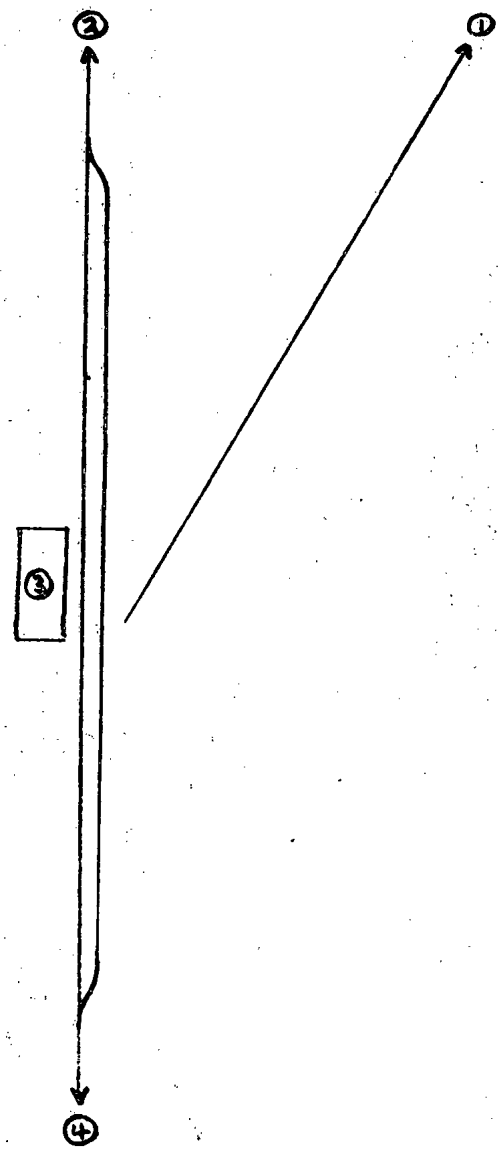
50X1-HUM

ANNEXE 16 to APPENDIX "B".



50X1-HUM

NAKLONNYI HALT  
TRACK LAY-OUT.



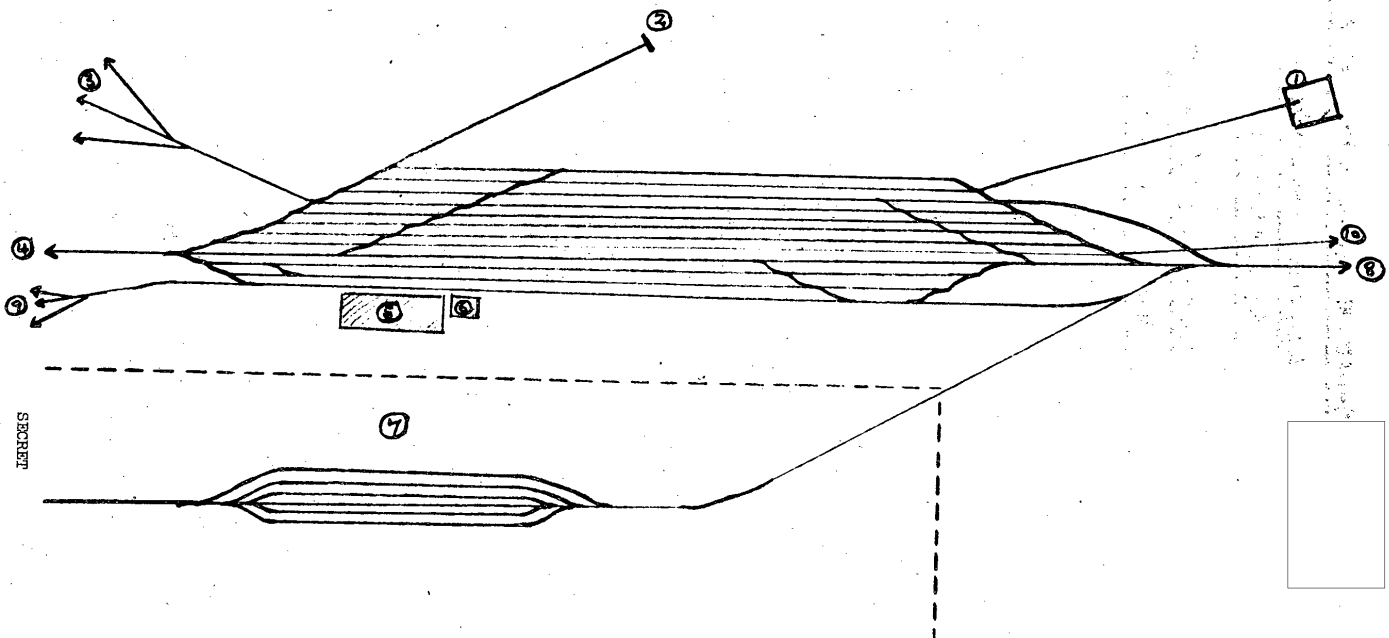
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ANNEXE 17 .6 APPENDIX "B"

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50X1-HUM

GULBAKHA STATION  
TRACK LAY-OUT.



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50X1-HUM

SECRET

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SECRET

ANNEXE 18 TO APPENDIX "B"

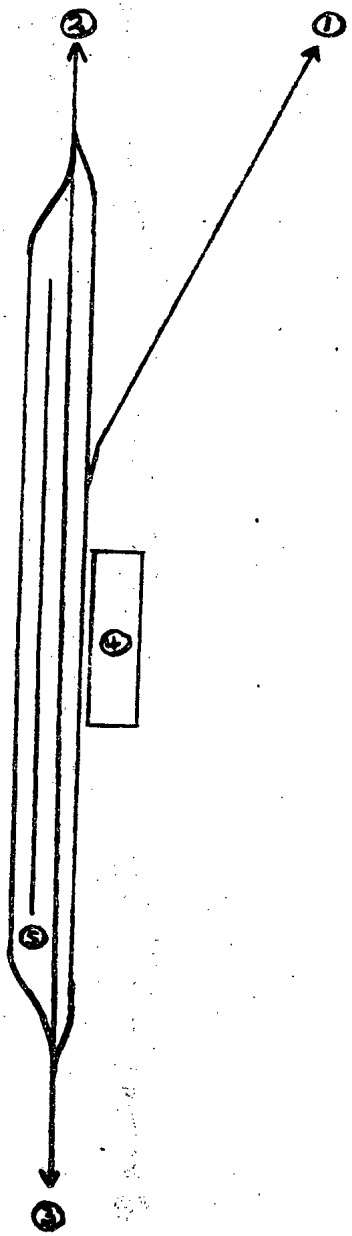
50X1-HUM



50X1-HUM

KOS'VA HALT

TRACK LAY-OUT:



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ANNEX 19 IS APPENDIX "B"

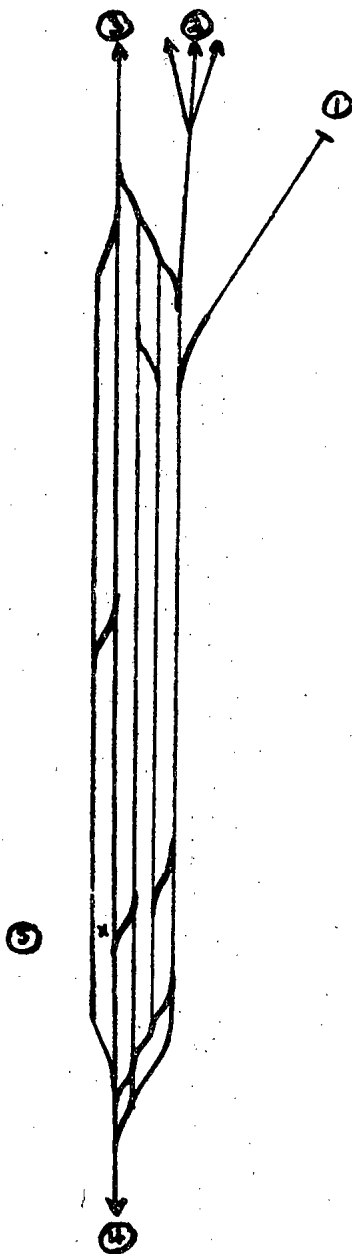


50X1-HUM



50X1-HUM

NAGORNAYA HALT  
TRACK LAY-OUT.



SECRET

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SECRET

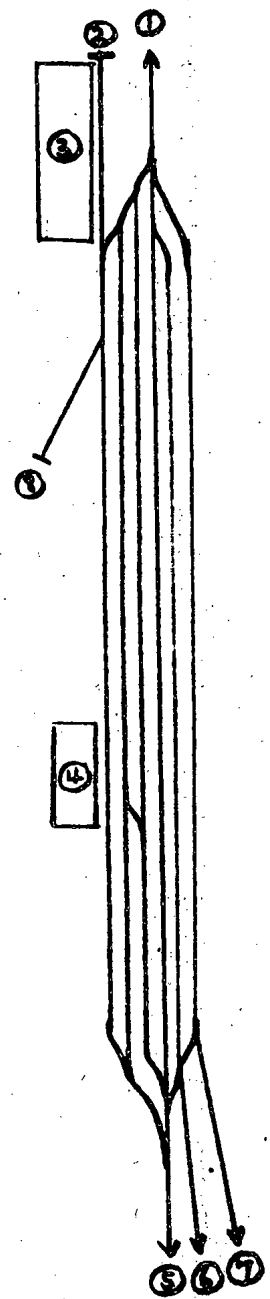
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ANNEXE 20 IS APPENDIX "B"



50X1-HUM

US'VA STATION  
TRACK LAY-OUT



SECRET

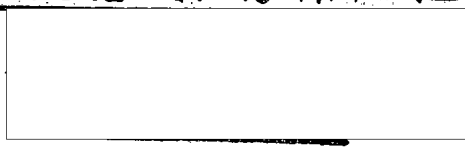


- 40 -

SECRET

ANNEXE 21 & APPENDIX "B"

50X1-HUM



50X1-HUM

PASSEG  
BASEK HALT  
TRACK LAY-OUT



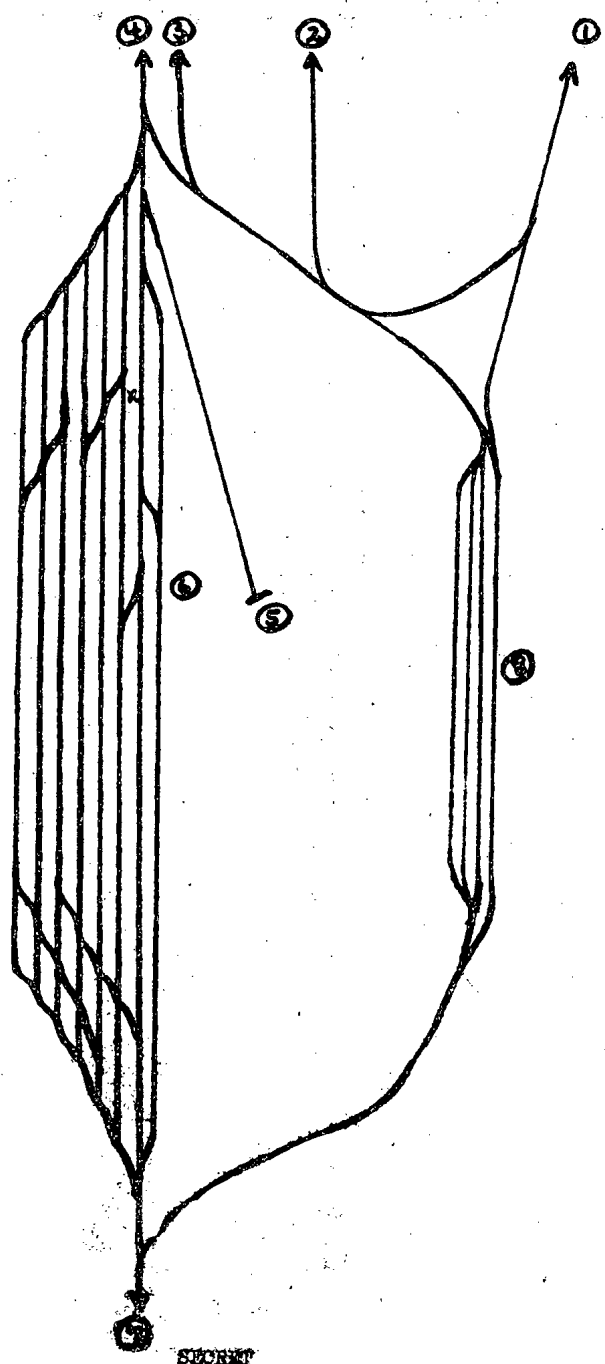
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ANNEXE 22 IS APPENDIX "B"



50X1-HUM

BASKAYA STATION  
TRACK LAY-OUT.



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SECRET

50X1-HUM

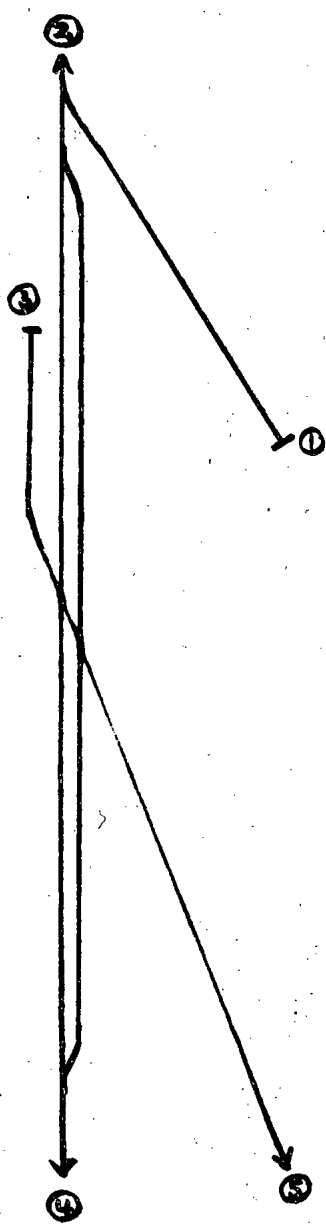
ANNEXE 23 IS APPENDIX "B".



50X1-HUM

ZAGOTOVKA HALT.

TRACK LAY-OUT.



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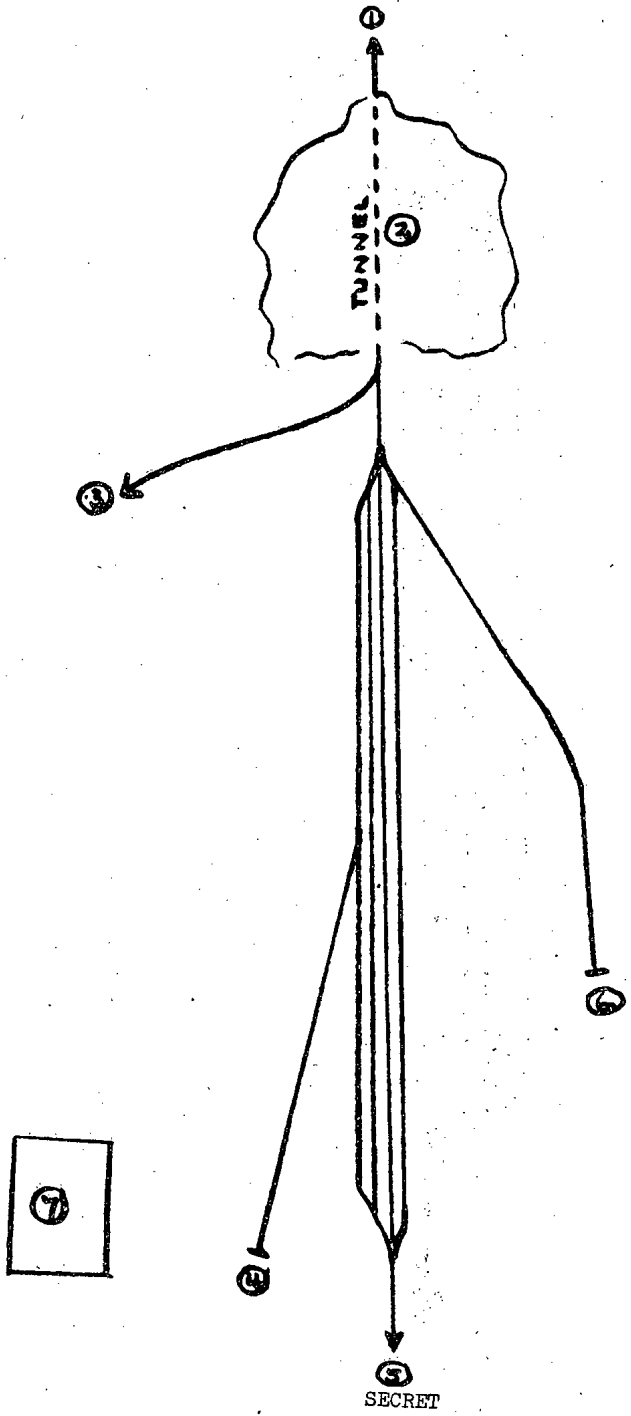
50X1-HUM

ANNEXE 24 & APPENDIX "B"



50X1-HUM

UTYOS STATION  
TRACK LAY-OUT.



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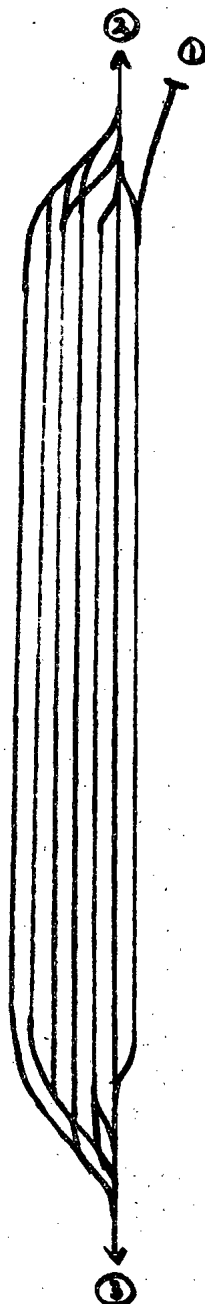
- 44 -

ANNEXE 25 IS APPENDIX "B"



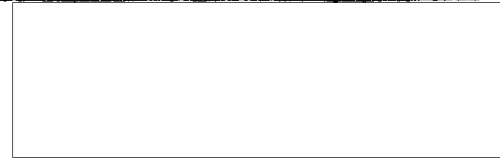
50X1-HUM 50X1-HUM

ANTYBARY HALT  
TRACK LAY-OUT.



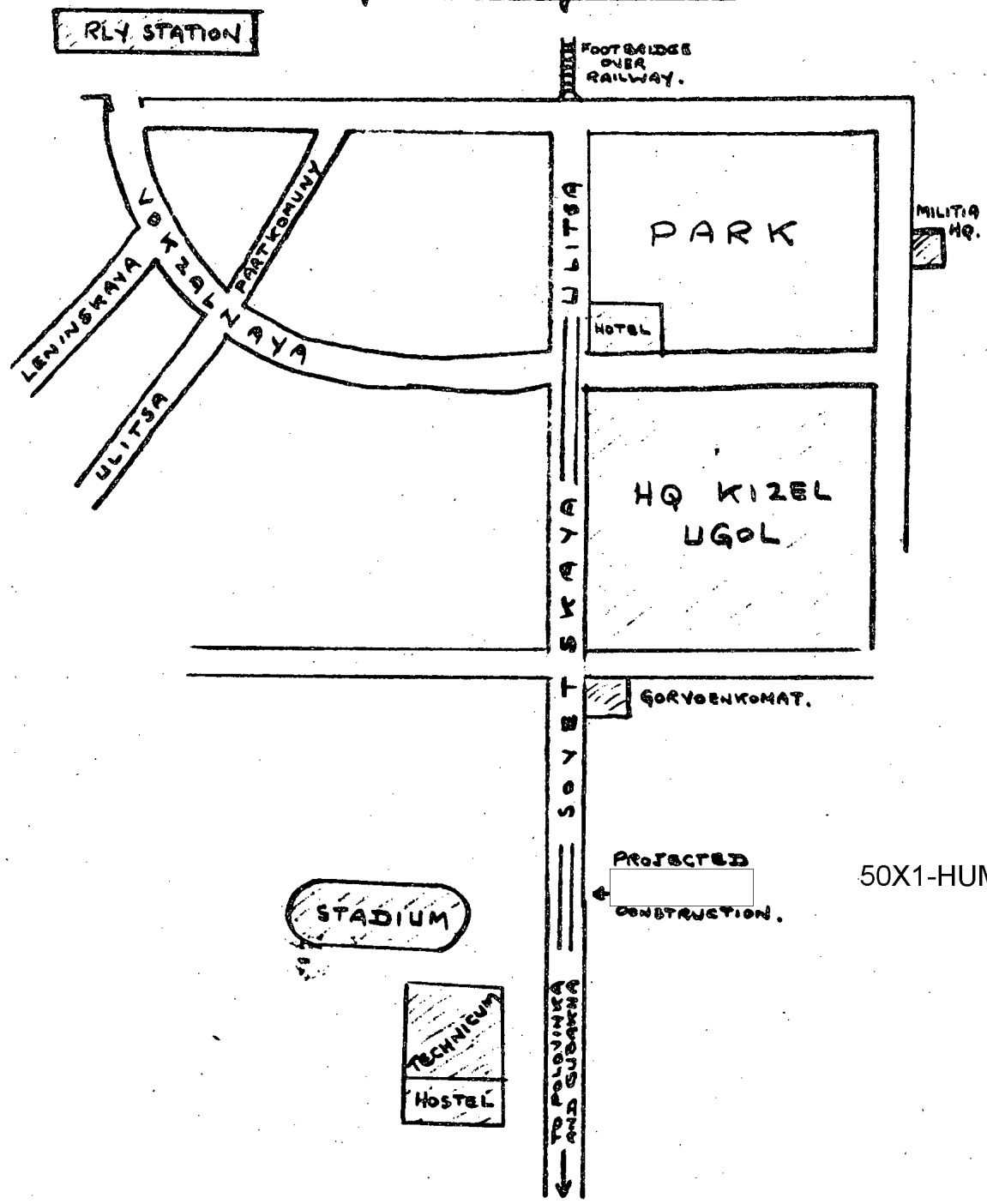
SECRET

ANNEXE 26 to APPENDIX "B"



50X1-HUM

Rough Sketch of KIZEL.



50X1-HUM