DECLASSIFIED

EOC 74

COPY NO. 8

ENEMY OIL COMMITTEE

WESTERN AXIS SUB-CONMITTEE

"UNKNOWN" SYNTHETIC OIL PLANTS

OF THE WESTERN AXIS

PROCEASSIFIED

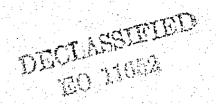
Washington, D. C.,

December 5, 1943.

INDEX

	Page
Alphabetical index of all "Unknown" Synthetic Oil Plants Reported	2
Summary	1
"Unknown" Synthetic Oil Plants by Regions:	
Western Germany	11
Central Germany	15
Northern Germany	27
Southern Germany and Austria	<i>2</i> 8
Silesia	33
Poland	41
France	112
Italy	1:5
Hungary	л е
Bulgaria	<u></u> ኴ7
Synthetic Oil Storage Facilities	718

WAR DEPARTMENT Military Intelligence Service WASHINGTON



10 January 1914

Mr. brandon H. Grove,
Executive Secretary, Enemy Oil Committee,
Foreign Economic Administration,
Temporary Building "T", Room 2247,
Tashington, D. C.

Dear Mr. Grove:

Enclosed are a few minor corrections to be made in the report on "Unknown" Synthetic Oil Plants, as listed below:

- Fage 2. Annaberg, near Torgau, should read Annaburg.
 Hall-Nordhausen should be Halle-Nordhausen.

 Kieferstädtel needs an Umlaut.

 Krappnitz should have the "n" deleted.

 Stettenz delete the first "t".
- Page 3. Pennsberg delete one of the "n's".
- Page 6. 2nd Column, 3 from bottom delete the first
- Page 7. lst Column, 5 from bottom delete "n" in Krappnits.
- Page 9. Item 9 in the list, delete "n" in Krappnits.
- Fage 11. Line 2 of paragraph "a" under "Griesheim" Change "Greis-" to "Gries".
- Page 25. Delete 1st "t" in "Stettens". In paragraph
 "b" delete "has not been located" and insert "is
 one km. east of Teplitz".
- Page 37. Delete "n" in Krappnitz.
- Fage 18. Under "Gogolin", delete the "n" in Krappnitz the 3 times it is mentioned.
- Delete "n" in Krappnitz. (Located in Upper Silesia).

In paragraph "a" of "Aussig" on page 15. "from the same source" does not refer to the previous sentence, but rather to the source mentioned in the bottom 2 lines of page 38 under "Mahrisch-Ostrau". This mistake is a misinterpretation of the information in "Supplementary Information to the Report on 'Unknown' Lynthetic Oil Plants of 18, November, 1943", dated 2 December, 1943.

Sincerely yours,

/s/ Harold G. Carlson

Harold G. Carlson.

SECRET

ALPHABETICAL INDEX OF ALL "UNKNOWN! SYNTHETIC OIL PLANTS REPORTED

Location	Page	<u>Location</u>		Page
Altenburg Altheide Annaberg, East of Annaberg, Near Torgan Arezzo Auschwitz Aussig Badeste (See Burgas)	15 33 33 15 45 33 15	Halle Hall-Nordhausen Hart Hausruck (See Linz) Heidelberg a/Neckar Heydebreck Hirschberg Hirschstetten Hohenelbe		19 20 28 29 11 36 20 28 36
Beuthen	3 ji	Holtenau (See Kiel)		27
Bitterfeld	16			
Blendecques	η5	Kaaden		20
Borna	16	Ka merbruch (See Lint	fort)	12
Bouches du Rhone		Kassel District		21
(See Fuveau)	η5	Keufering		29
Brieg	311	Kieferstadtel		37 27
Buchenau	31 <u>.</u> 117	Kiel-Holtenau		21
Burgas	/	Komotau Krappnitz		37
Chorzow	<u>31</u> .	Krickau		37
Czechowice	35	Kunzendorf		37
Deutzen	17	Laurahütte		38
Dorsten	11	Lausitz Region (See:	Forst	18
Dux	17		Mueckenberg	
Dyhernfurth/Oder	35		Senf tenberg	_
		Lehrte		21
Falkenau a/d Eger	17 15	Leipzig		21
Florence		Leschnitz		38 1:2
Floridsdorf	28	Lierru (?)		
Forbach	h 0	Lintfort-Kamperbruch		12 29
(See Marienau)	113 10	Ling		12
Forst	18	Ludwigshafen		٠.٠
Freital	19	Mährisch-Ostrau		38
Freyburg	19 11	Maltheuern		
Friedberg Fuveau	11 12	Marienau-		F3
Euveau in in a series in a		Marseilles		113
Gardanne		Mirepeisset		113
(See Fuveau)	рS	Mirow		<u>L</u>
Gendorf	28	Moosbierbaum		30
Gleiwitz	35	Mueckenberg		22
Granschütz	19	가는 사람들은 발표 함께, 전쟁적인 회에는 사이는 사람 사람들은 회장 기업을 전혀 함께 되어 있는 것이다.		
Griesheim	11	Neuki rchen		30

ALPHABETICAL INDEX OF ALL "UNKNOWN" SYNTHETIC OIL PLANTS REPORTED (Continued)

Location	Page	Location	Page
Nieder Ingelheim	13	Witterschlick	14
Offleben Oppau (See Ludwigshafen) Oswiecim (See Auschwitz)	22 13 12 33	Zwentendorf (See Moosbierbaum) Zwickau	30 26
Pennzberg (See Weilheim) Pernick (See Burgas) Petfurdo Praterspitz	31 47 46 31		
Regis Reigersfeld Ried im Innkreis Riesenburg, Near Rimbeck Rodleben Rositz	22 39 31 27 23 23 23		
Saaz Saint Hilaire (See Mirepeisset) San Giuseppe del Cairo Schlackenwerth Seestadtl Senftenberg Spandau Stettin Stettenz Strehla	24 43 45 24 24 24 27 25 25		
Tarnow Teplitz (See Stettenz) Toulon	41 25 44		
Verdingen	13		
Vőcklabruck Völklingen	31 14		
Waldenburg Webau Weilheim Weissenfels	39 25 31 26		

"UNKNOWN" SYNTHETIC OIL PLANTS OF THE WESTERN AXIS

During the last two years there have been an increasingly large number of reports of new synthetic oil plants in Axis Europe, largely in Germany. This paper has been written in an attempt to bring together and evaluate these reports.

The German radio announced that twelve new plants for the production of synthetic gasoline and synthetic rubber were built during 1942 in Eastern Germany. A reliable source reported through our consul in Vichy in September, 1942, that thirty new synthetic oil plants were said to be under construction. It was officially claimed in Italy that new hydrogenation plants were built in 1942. Yet a great many experts in this country — and especially in England — hold that these statements are purely propaganda, as we have no definite proof that they are true.

The German synthetic oil industry has been enormously expanded since the war. Although the production of the pre-war plants has been increased and large new plants, such as Blechhammer and Brux, are being built, the fact that many small plants have been erected should not be overlooked. The German Four Year Plan, for example, recommended 40,000 tons a year as the minimum-sized plant for hydrogenation. A plant for operating on high temperature coal tars might very well be operated at this capacity and, in fact, be hidden away in a steel or coking plant without being readily recognized in aerial reconnaissance. The erection of many small plants, especially in the regions of Central Germany and Silesia, is in keeping with the German policy of decentralization of industry in areas remote from Allied air bases.

Ninety-seven "unknown" synthetic oil plants have been reported. Of these, 41 (42%) may be regarded as probably non-existent. Thirty-nine (40%) other plants have been classified as possibly in existence and 17 plants (18%) as probably existent.

Of the 56 "probable" and "possible" plants, 34% are located in Silesia, and 27% in Central Germany, including the Sudetenland. Both of these regions are admirably suited for the synthetic oil industry due to an abundance of coal and lignite deposits and tar and coke plants.

Although 18 of the "probable" and "possible" plants have been reported as Bergius hydrogenation plants and only three as Fischer-Tropsch plants, this may not be correct. The British have commented in a number of instances that a synthetic oil plant said to be operated by the Bergius method is probably a Fischer-Tropsch plant, because of its small capacity.

The total production of the 17 "probable" and "possible" plants which have had production figures reported is well over a million tons per annum. Only 67,000 tons of this amount is reported to be produced by the Fischer-Tropsch system. In the American-British conversations on Axis oil in London last July, the American representatives maintained that a production figure of 270,000 tons should be allowed for "unknown" hydrogenation plants, and 230,000 for "unknown" Fischer-Tropsch plants. The final decision was to keep the Fischer-Tropsch figure as the Americans proposed, but to delete the hydrogenation figure entirely.

In assembling the material presented in this report, it has not been the intent that alternative production estimates for the "un-known" plants would be directly derived. Rather, the purpose has been to bring together, and roughly assess, all available intelligence: good, bad and indifferent, that may bear on the subject. This, for the further consideration of the experts — here and abroad. Hean-while, it may be pointed out that if only a very limited number of the plants listed as "probable" actually produce synthetic products, a very substantial increment — over and above the figures quoted in the preceding paragraph — would result. To say the least, the figures agreed on at the London meetings seem conservative.

In this summary, the plants have been arranged alphabetically by region. The various reports received are presented with some indication of source and date, followed by an evaluation. As the classifications of "probable", "possible", and "improbable" are subject to constant revision, they have been indicated only on the summary sheet and not with the reports.

It is hoped that all confirmatory and contradictory evidence of the existence of these synthetic oil plants will be brought to the attention of this office.

SUITARY OF "UNKNOWN" SYNTHETIC OIL PLANTS REPORTED

The "unknown" synthetic oil plants reported have been classified as probable, possible and improbable. These classifications may be changes as further intelligence is received.

Total	Probable	Possible	Improbable
	TOTAL	WESTERN AXIS	
97 (100%)	17 (18%)	39 (20%)	41 (42%)
	<u>A.</u>	ester geriany	
10	o ·	6	4
		Dorsten Heidelberg Lintfort- Kamperbruch Ludwigshafen Verdingen Völklingen	Friedberg Griesheim Wieder Ingelheim Witterschlick
	B. GI	NTRAL GERMANY	
37		14	22
	Falkenau	Annaburg Aussig Forst Freyburg Granschütz Halle Halle-Nordhausen Kaaden Muckenberg Rodleben Schlackenwerth Stettenz (Teplitz) Strehla Webau	Altenburg Bitterfeld Borna Deutzen Dux Freital Hirschberg Kassel District Komatau Lehrte Leipzig Haltheuren Offleben Regis Rimbeck Rositz
			Hositz Saaz

SUMMARY OF "UNKNOWN" SYNTHETIC OIL PLANTS REPORTED (Continued)

Total	<u>Probable</u>	<u>Fossible</u>	Improbable
	B. CENTRA	L GERMANY (Continued)
			Senftenberg Spandau Seestadl Weissenfels Zwickau
	C. NORTHE	RN GERMANY	
3	· 10 · 10 · 10 · 10 · 10 · 10 · 10 · 10		3
			Kiel Riesenburg Stettin
	D. SOUTHERN G	ERMANY AND AUSTRIA	
12	3	3	6
	Hirschstetten Linz Neukirchen	Hart Moosbierbaum Weilheim	Floridsdorf Gendorf Kaufering Praterspitz Ried im Innkreis Vöcklabruck
	E.	SILESIA	
21			
	Altheide Annaberg Beuthen Brieg Buchenau Hohenelbe Kieferstädtel Krappnitz Kunzendorf Laurahutte Mährisch-Ostra Waldenburg		Dyhernfurth Leschnitz

SUMMARY OF "UNKNOWN" SYNTHETIC OIL PLANTS REPORTED (Continued)

Total	Probable	Possible	Improbable
		F. POLAND	
2	0	2 Mirow Tarnow	0
		G. FRANCE	
. 7	1	3	3
	Mirepeisset	Fuveau Marienau Toulon	Blendacques Lierru (?) Marseilles
		H. ITALY	
3	0	2 2	1
		Arezzo Florence	San Giuseppe del Cairo
		I. HUNGARY	
1	0		0
		Petfurdo	
		J. BULGARIA .	
1	0		0
		Burgas	

PROCESS AND PRODUCTION

Of "Probable" and "Possible" Plants As Given by Sources Reporting the Plants

Total production figures reported: (Tons per annum) 1,444,000 - 1,584,000

and the second of the second	4 7 7			
	** *		(7 /	Plants)
12 man man 12 m		~~~~	~~ [[(<i>)</i>
SACSTIN			(11) 1 1 7	\
			V++ \ \ \	/ + <u></u>

Freyburg Rodleben	96,000 25,000	- 125,000
Annaberg	120,000	
	90,000	
Bucherau	140,000	·
Heydebreck	60,000	- 72,000
Hohenelbe V:-foretoot-2	72,000	50,000
Kieferstadtel Krappnitz	36,000 84,000	- 50,000
Kunzendorf	144,000	
Laurshütte	120,000	
Ludwigshaven	200,000	
Mährisch-Ostrau	50,000	- 60,000
Uerdingen		
Waldenburg		
Mirow Tarnow		
Arezzo	,	
	1,237,000	1,377,000
Fischer-Tropsch (3 Plants)		
) o 000	
Altheide Fuveau	42,000 25,000	
	27,000	
	67,000	
	(180,000	eventual
Mirepeisset	(100,000	capacity)
<u>Unknown Process (3 Plants)</u>		
Lintfort-Kamperbruch	20,000	
Linz	120,000	
(1962년 - 1일 전 1962년 - 1962년 - (1962년 - 1962년 - 1962	140,000	
Burgas	(20,000,000	liters
가 들어 두 보다는 것으로 보는 것이 되었다. 하는 것이 되었다. 하는 것이 없는 것이 되었다. 이 사용 보는 것이 있는 것이 되었는데 있다. 하는 것이 되었는데 되었다. 이 중심하는 것을 모임하는		capacity)
化二氯化物 医动物性的 人名英格兰人姓氏 医多氏性 化二甲基酚 建二基基酚 经营工 医电影 医电影 医电影 化二氯甲基	or and the large state at the first of the	

PROCESS AND PRODUCTION

Of "Improbable" Plants

Total	production figures reported: (Tons per annum).	435,000
	Bergius Hydrogenation Process (3 Plants)	
	Offleben Krickau Zwickau	150,000
		335,000
	Unknown Process (2 Plants)	
	Freital Hirschberg	70,000 30,000
		100,000

WESTERN GERMANY

Dorsten. (25 km. north of Essen, on the Lippe River.)

- a. A large plant producing synthetic rubber and gasoline is located slightly east of the town on the Lippe River and Lippe Canal, according to a prisoner of war. Large storage tanks, always full, are camouflaged and surrounded by trees. The informant noticed an odor of chlorine about the place and suspects that chemical gases may be produced there.
- b. It is known that the Dachpapen- und Teerprodukte Fabrik Dr. Kohl and Co. is located in Dorsten. This company distills tar, and manufactures tar products and roofing paper. This may be the company referred to in the above report.

Friedberg, Oberhessen. (25 km. north of Frankfurt, 30 km. southeast of Wetzlar.)

- a. A small plant working on the Fischer-Tropsch system is said by a prisoner of war to be at Friedberg. He could give no figures of output but estimated the number of workmen employed to be 800 to 1,200.
- b. This report may refer to the making of synthetic fats by the Fischer-Tropsch system at the Franz Custor Seifenfabrikation, a soap factory located in this town.

Griesheim. (Suburb west of Frankfurt am Main.)

- a. In July a refugee claimed that among the most vital objectives in Germany were the Leuna Works and the I. G. plant at Greisheim which produced explosives and synthetic gasoline.
- b. The British comment that it is unlikely that the Griesheim factory, which belongs to a group largely concerned with electrolytic chemicals connected with ferro alloys, would be engaged in synthetic fuel or explosives production.

Heidelberg a/Neckar.

a. It was reported in April, 1943, that an important factory for the extraction of synthetic oil (l'essence synthetique) from coal is being built at Heidelberg. It extends over two plots 12 km.

WESTERN GERMANY (Continued)

long and 6 km. wide. There are 40,000 workers, of whom 4,000 are French, and 12,000 are French prisoners of war from a punishment camp.

b. According to information from the Polish Intelligence dated July, 1943, a new chemical factory belonging to the I. G. Farben-industrie is being erected in Heidelberg. This may refer to the firm mentioned above. The large number of workers are probably construction workers. For raw materials a synthetic oil plant in this location could use hard coal from the Saar nearby.

Lintfort-Kamperbruch. (15 km. northwest of Duisburg.)

- a. This plant has been reported frequently, but full particulars are lacking. It was estimated by the M.E.W. early in 1942 to have the capacity of 20,000 tons per annum.
- b. The president of a large oil company states that there is great probability that the plant does exist, and that it probably treats tars from the steel-producing plants in the Saar area. There is further possibility that it is a carbonization plant primarily and produces materials for hydrogenation for the major synthetic plants of Germany.

The Steinkohlenbergwerk Friedrich Heinrich A. G. is located in this town. It is officially stated that this large company not only mines coal, but also manufactures products from this coal. It is possible that this may be the company operating the synthetic oil or carbonization plant reported above.

<u>Ludwigshafen</u>. (On the Rhine, opposite Mannheim. 10 km. southeast of Oppau.)

- a. That synthetic oil is produced in the large works of the I. G. Farbenindustrie has often been reported. A British source recently stated that the experimental laboratories of I. G. at Oppau operated on the Bergius principle, producing 200,000 tons annually.
- b. The I. G. Farbenindustrie is situated on the west bank of the Rhine between Ludwigshafen and Oppau. A synthetic oil research laboratory here has been identified in aerial reconnaissance. However, as this small plant is for experimental purposes, no substantial production has been assigned to it.

WESTERN GERMANY (Continued)

However, from the British source above, and from data supplied by prisoners of war, there is evidence that a "substantial" amount of synthetic oil is produced here. A rough sketch of the factory layout drawn by a prisoner shows a synthetic gasoline factory in addition to experimental laboratories.

Nieder Ingelheim. (On the Rhine, about 10 km. west of Mainz.)

- a. It was reported in November, 1942, that a synthetic oil plant here is operated by C. H. Boehringer Sohn.
- b. This company, located in Ingelheim, produced alkaloids, pharmaceutical products and special preparations before the war.

In comments made on the E.O.C.'s "Summary of Data on 'Unknown' Synthetic Oil Plants in Axis Europe," it was said that this plant might be confused with underground storage installations just west of Mainz. This is no longer thought to be true, as these storage tanks are on the outskirts of Mainz, and the Boehringer company is about 10 km. west of this city.

Oppau. (See Ludwigshafen)

<u>Uerdingen</u>. (About 5 km. from Krefeld, on the west bank of the Rhine.)

- a. It was recently asserted that new "Hydrierwerke" are being built at Uerdingen. About the same time another source told of a newly constructed chemical plant at Uerdingen not to be confused with "the distillation plant for the production of synthetic oils which is situated some distance from this plant."
- b. Air cover in August showed that some buildings of new construction adjacent to the chemical works had been completed. As there was no sign of visible gas generation and purification, oil storage and refining plants, it is fairly certain that there is no synthetic oil plant of significant size included in the chemical works, according to the British.

This air coverage does not in any way diminish the possibility of the existence of a synthetic oil plant at Uerdingen, however, as this factory is specifically said to be located some distance away from the chemical plant.

WESTERN GERMANY (Continued)

Völklingen. (In the Saar, about 20 km. west of Saarbrücken.)

- a. According to Polish Intelligence received in July, the Völklingen Metallurgical works, employing 15,000 workers, make high grade steels, vanadium, synthetic gasoline, and propane for driving motor cars. There are very large workshops for the manufacture of spare parts for the Navy, artillery and air force.
- b. Before the war this company made metal household and technical products. It is possible, however, that this company has built a synthetic oil plant. Raw materials could be easily supplied from the coal fields of the Saar.

Witterschlick. (5 miles southwest of Bonn.)

- a. A synthetic oil factory was reported to be in the vicinity of Witterschlick.
- b. Air cover in August revealed no sign of any such plant in the region.

CENTRAL GERMANY

Altenburg. (40 km. south of Leipzig.)

- a. It was reported in February, 1943, that the Leuna works at Leipzig had been enlarged, and that near Leipzig at Altenburg and Bitterfeld there were additional synthetic gasoline plants.
- b. The statement that the Leuna works are at Leipzig instead of Merseburg leads one to question the accuracy of the rest of the report. However, these towns would be logical locations for synthetic oil plants.

The British reported in August that surface peat coal mines had recently been started at Meuselwitz and Wintersdorf, Thuringia, and that the output is for synthetic fuel production. These towns are a few km. apart, about 15 km. east of Zeitz and 15 km. northwest of Altenburg. At Zeitz there is a "known" synthetic oil plant. However, these mines might also supply an "unknown" plant at Altenburg.

Annaburg, near Torgau, Saxony. (20 km. north of Torgau, 70 km. northeast of Leipzig. On the Neuer Graben River.)

- a. A prisoner of war described the location of this synthetic oil plant from observation in 1940. It is in the woods on the north side of the narrow gauge railway line from Prettin on the Elbe to Annaburg. The 12 large tanks, 12 meters high and 6 meters in diameter, are protected by splinterproof walls 50 centimeters thick and by camouflage. This gasoline blending plant makes only aviation gasoline.
- b. There is an electric power station in Annaburg. The location is well suited to a synthetic fuel factory.

Aussig. (Sudetenland. On the Elbe River, about 50 km. southwest of Dresden and 30 km. northeast of Brux.)

- a. In January, 1943, it was stated that there was a synthetic oil plant at Aussig. From the same source a further detail was supplied of the synthetic oil plant that the Verein für Chemische und Metallurgische Produktion was planning to erect in 1937. The plant was to be located at the company's coal mines in Handlova, Slovakia.
- b. The Verein für Chemische und Metallurgische Produktion was the second largest chemical company in Central Europe, following I. G. Farbenindustrie. When Jermany marched into the Sudetenland, I. G. and the Heyden Chemical Company acquired the two principal plants of

this company, at Aussig and Falkenau. While this plant produced a wide variety of chemicals, it specialized in dyestuffs and heavy chemicals. It is known that this firm was considering the hydrogenation of coal prior to the war. The Aussig plant is located on a railroad line near the river. Most of the raw materials consumed are transported on the Elbe. Power is supplied by the company's power plant for which coal is obtained from company mines a few kilometers away and transported by an overhead cable railway. (See remarks on plant at Falkenau.)

The second largest factory in the City is Georg Schicht A. G., a soap and hydrogenated fats plant.

It is possible that the Aussig Chemical Company is making synthetic gasoline in addition to other chemical products. Another possibility which cannot be disregarded is that the production of hydrogenated fats and oils at the Schicht plant was erroneously reported as synthetic fuel oil.

· A censored letter dated May 10, 1943, addressed to the Hydrierwerk at Aussig, might refer to a synthetic oil plant or to the Schicht company mentioned above.

Bitterfeld. (35 km. north of Leipzig.)

- a. A synthetic gasoline plant was reported here in February, 1943.
- b. See remarks on Altenburg.

In Bitterfeld region there are several factories of the I. 3. Farben company, where aluminum, phosphorus, and other chemicals are produced. Eight to ten thousand workers are employed, including many foreigners, according to a prisoner of war. Gas grenades are also made here.

According to Czechoslovakian Intelligence of last October, plants at Halle and Weissenfels produce more light fuel for aircraft than was formerly produced at the synthetic fuel factory in Bitterfeld. No further details of this Bitterfeld factory are given.

Borna: (About 25 km. south of Leipzig.)

- a. The Enemy Oil Committee's report on "unknown" synthetic oil plants lists Borna, with the remark that it might be a low temperature carbonization plant.
 - b. An American industrialist stated that the Boehlen plant of

the Brabag company is located in Borna on the property of the Bornaer Lignite Colliery. A large open pit mine is alongside a large power plant. A letter from an Italian workman, dated August, 1943, stated that he was working for Brabag in or near Borna. From these two reports it seems likely that this plant is connected with the Boehlen-Rötha synthetic oil plant of Brabag, about 10 km. away.

Recent air cover of Borna and its surroundings shows no signs of the existence of a synthetic oil plant.

Deutzen (About 5 km. west of Borna.)

- a. The Niederlausitzer Kohlenwerke is said to have erected a synthetic plant at Deutzen before the war.
- b. The Niederlausitzer Kohlenwerke, Abteilung Schwelerei Kraft II, is located in Berlin with a tar and coke plant at Deutzen, Saxony. It probably produces tar products of various kinds rather than synthetic gasoline.

Dux. (12 km. northeast of Brux, Sudetenland.)

- a. In the summer of 1942 the existence of a synthetic oil plant at Dux was first mentioned. In April, 1943, it was stated that the Lurgi Company of Frankfurt recently delivered "plant required for making aviation spirit" from lignite to German factories which have been established at Brüx and Dux. The factories will use 24,000 tons of lignite daily from which 3,000 tons of tar will be produced daily.
- b. From the latter report it is probable that the Dux plant will produce tar from which aviation gasoline can be made at Brux.

Falkenau a/d Eger. (Sudetenland. 15 km. southwest of Karlsbad.)

- a. A synthetic oil plant was reported here in March.
- b. Dr. Antonin Basch, formerly general manager of the Verein für Chemische und Metallurgische Produktion of Aussig, stated that a new synthetic oil plant had been erected near the main chemical works at Falkenau belonging to this company. He believes it is quite small. (See remarks on Aussig.)

The Falkenau chemical plant is located one mile west of the Falkenau railroad station and covers an area of at least one mile

long and a half mile wide. Coal is brought in from the Georgschacht mine a mile and a half from the plant by conveyor. These mines produce half a million tons of lignite yearly. Within the plant compound the company has its own power house.

A former Czech coal operator, who owned the Mariahilf und Mathias Kohlenwerk in Zwodau (2 km. northwest of Falkenau), said that before the German occupation he had planned to construct synthetic gasoline plants in connection with his mines at Falkenau. He claims that the high bitumen content of the Falkenau coal makes it very suitable for synthetic gasoline production.

According to information in June, 1941, from Vladimir S. Hurban, the Czechoslovakian Minister in Washington, the Germans began building a synthetic gasoline factory in Falkenau (Falknov) at the beginning of 1940. The planned capacity was 500,000 tons yearly. It was expected to be completed in the summer of 1941 and partial production had already been attained in June, 1941.

From the above evidence, the existence of a synthetic oil plant at Falkenau is fairly well substantiated.

Forst. (About 100 km. northeast of Dresden and 20 km. east of Cottbus. In the Lausitz region.)

- a. Last June the Polish Intelligence reported a synthetic oil plant partly situated in underground buildings located in the woods east of Forst, the boundary running along the Forst-Sommerfeld road, the river Neisse and the Forst-Teuplitz road, near the Cottbus-Sagen railway line. The British Enemy Oil Intelligence Committee transmitted a report in July that about seven miles west of Teuplitz a special railroad siding was seen near which there was a heavily guarded building which appeared to be a pumping station. From this an 18-inch pipeline with pumping stations every kilometer ran flanking the railroad track towards Forst. Five miles from Forst it disappeared into the woods.
- b. Though the British Enemy Oil Intelligence Committee merely commented that the Polish Intelligence report was probably an elaboration of the report concerning a pipeline, the existence of a new synthetic oil plant in this region seems most probable. Brown coal is available in this area, and the building of a new plant

· 经收益的 (1965年) 1966年 19

hidden in the woods and partly underground is in conformity with the German policy of dispersing and camouflaging vital production in the eastern districts.

Freital. Dresden.

- a. A refinery at Freital is reported to be producing 70,000 m. tons of synthetic oil annually.
- b. The Enemy Oil Committee's report on Western Axis Refineries of June 10, 1943, lists the Freital plant as producing Voltol.

Freyburg. (On the Unstrut River, near Herseburg.)

- a. It was reported in Narch, 1943, that a hydrogenation plant producing 96,000 tens of methanol per annum was completed in 1942.
- b. The Enemy Oil Committee in their report on "unknown" synthetic oil plants lists this as "Neisenfels (Freyburg)", about 10 miles south of Leuna on the River Saale and about the same distance south of Zeitz, with the comment that it may be a low temperature carbonization plant.

Freyburg is about 10 km. west of Weissenfels and on the Unstrut River, though Weissenfels is on the Saale, and is north of Zeitz, not south. Although it is possible that it may be a low temperature carbonization plant, it is equally possible that it is a synthetic oil plant.

- Granschütz. (5 km. southeast of Weissenfels and 15 km. north-northwest of Zeitz.)
- a. Czechoslovakian Intelligence of October reports that light petrol for aircraft engines is being produced from "pyropissit coal" by the Anhalter Bergbaugesellschaft in Granschütz near Halle a.S.
- b. This company is not listed in the German chemical index of 1970.

Halle. (On the Saale River.)

a. According to Czechoslovakian Intelligence of October, 1943,

light petrol for aircraft engines is being produced from the so-called pyropissit coal (Pyropissitkohle-Wachskohle, dirty-yellow highly inflammable brown coal) by factories of the Verschen-Weissenfelser Braunkohlen A. G. of Halle. The factories are in Halle a.S. and in Weissenfelsen.

b. This company produces brown coal tar, gasoline of all kinds, paraffin cil, various heating cils, automobile fuel and other products, according to a German chemical index of 1940. Although this concern owns various plants in this district, it did not have any installations in Veissenfels in 1940.

Between Halle and Wordhausen.

- a. According to a report received in March, a synthetic oil plant between Halle and Nordhausen, south of the railway line between these towns, was then nearing completion.
- b. It is not known to which plant this refers. The British Enemy Oil Intelligence Committee remarked that extensions to the Lützkendorf synthetic oil refineries may have been the origin of this report. As this place is some 20 km. almost directly south of Halle, this is not thought to be likely.

Hirschberg. (Saxony, on the Saale River, near Plauen. There is also a much larger city of Hirschberg in Silesia, near the Czech border, southwest of Breslau.)

- a. A synthetic oil plant was reported in 1941 to be in Hirschberg, Silesia. In the summer of 1942, the OSS reported "from a reliable source" that approximately 30,000 tens per annua of synthetic oil were produced in Hirschberg, Saxony.
- b. No great credibility is given to either of these reports. Some other statements made by the first source have not proved to be accurate. 30,000 tons per annum would seem to be a very small annual output for the plant in Saxony. However, the existence of the latter plant is certainly not impossible.

Kaaden. (Sudetenland. 40 km. northeast of Karlsbad.)

a. A synthetic oil plant was reported last March to be located here.

b. No further details or confirmatory reports are available. The location in the brown coal area of the Sudetenland and on a good railway is one suitable for a plant of this type.

80 km. from Kassel.

- a. In January, 1943, it was asserted that a synthetic oil plant employing 45,000 workers, of which 32,000 were prisoners, was 80 km. from Kassel.
- b. Although the direction from Kassel was not specified, this location does not coincide with any other reports of synthetic oil plants. Rimbeck and Lehrte, both "unknown" plants, are about 25 km. and 100 km. from Kassel, respectively. Even if it were assumed that the 45,000 workers were employed on the construction of the plant, the installation would be so large that it surely would have been reported by other sources since last January.

Komotau. (20 km. southwest of Brux, Sudetenland.)

- a. In August, 1942, synthetic oil plants were said to be located here and at Saaz.
- b. As no confirmation or further information has been received in the intervening 15 months, the veracity of the report is doubtful.
- Lehrte. (15 km. east of Hannover, just off the Mittelland Canal.)
- a. An American business man who had been in Germany reported a year ago that there was a synthetic oil plant east and slightly north of the little town of Lehrte, on the branch of the railroad which leads north and east of the town.
- b. Perhaps the Julius Schindler crude oil refinery at Peine, about 15 km. further east along the canal is meant. 10,000 tons of crude oil are distilled there, and another 10,000 refined.

Leipzig.

a. A Spaniard who had been working in Germany stated last June that a synthetic gas plant is being set up in Leipzig.

b. In the absence of any confirmation and because of the unknown reliability of the source, this report should be disregarded until further evidence is secured.

Maltheuern. (5 km. northwest of Brux.)

- a. Various reports have mentioned the construction of synthetic oil installations at Maltheuern.
- b. These are thought to be part of the enormous synthetic oil works at Brux.

Nueckenberg. (In the Lausitz region, 7 km. west of Ruhland and 100 km. east of Leipzig.)

- a. The Polish Intelligence reported in Harch, 1943, that the chemical factory Baker in this town was producing synthetic gasoline.
- b. The "Chemo-Werk" branch of the Dr. Alexander Wacker, Gesell-schaft für elektrochemische Industrie G.m.b.H. is located in Mueckenberg. Wacker is undoubtedly misspelled as Baker. 4,500 workers were distributed among the seven branches of this Funich concern in 1940. This report is possible, but lacks any kind of confirmation.

Offleben. (About 15 km. northwest of Oschersleben and 40 km. west of Magdeburg.)

- a. The Brabag plant at Offleben is mentioned in various early reports on Germany's synthetic oil industry. The BEW's "Recapitulation of Synthetic Oil Plants in Western Axis Territory" of August 24, 1942, lists this plant definitely as Brabag III, with the estimated production of 150,000 m. tons annually, remarking that it started operating in 1937.
- b. The Enemy Oil Committee's report on synthetic oil plants of June 10, 1943, does not mention Offleben at all, either as known or unknown. It is not listed in the handbook of the German chemical industry of 1939/40.

Regis. (About 15 km. south of Leipzig, near Borna.)

a. This plant was reported by an American business man with

the comment that it might be confused with the plant at Borna, nearby. Another source stated that the Deutsche Erdol operates three old plants at Regis, Breitingen and Rositz, which had begun to produce and refine tar during the last war, supplying gasoline for submarines. The Regis and Rositz plants are said to be the important plants of the group.

b. The Deutsche Erdöl A. G. has a lignite mine and makes briquettes at Borna, but no mention is made of plants at these other places. From the evidence above, these are probably tar plants.

Rimbeck. (40 km. northwest of Kassel.)

- a. In January, 1913, a synthetic oil plant was reported to be at "Cimbeck", 20 km. northwest of Kassel.
- b. This undoubtedly refers to Rimbeck, 40 km. distant. There has been no confirmation or further information of any kind.
- Rodleben. (3 km. from Rosslau. Dessau-Rosslau are on either side of the Elbe.)
- a. The Deutsche Hydrierwerke at Rodleben is variously reported to be producing 25,000, 30,000, 100,000 and 125,000 tons of synthetic oil annually.
- b. In 1939 this company produced solvents, alcohol from fats and their derivatives and wax products, especially those used in textile, lacquer and paint products, largely using coal as their raw materials. The British Enemy Oil Intelligence Committee believes that the plant is largely devoted to experimental work and the production of chemical products other than oil.

Rositz. (6 km. northwest of Altenburg.)

a. A prisoner of war reports that more than 50,000 men are employed in the mines and factories administered by the Deutsche Erdöl A. G. in the Rositz area. Near the lignite pits are situated the Hydrier works for liquefaction of coal and its conversion into __catalysts. They gasoline, with installations for polymerization and catalysts. They are in the open country and are connected with gasoline tanks by overhead conduits. They are four or five in number.

b. This is listed as a coal tar plant in the Enemy Oil Committee's report on Western Axis refineries. See also the remarks on Regis.

Saaz. (Sudetenland. About 20 km. south of Brux.)

a. See remarks on Komotau.

Schlackenwerth. (About 50 km. southwest of Brux, Sudetenland.)

- a. An unconfirmed plant here was mentioned by the British in January, 1943.
 - b. No further information is available.

Seestadtl: (7 km. southwest of Brux.)

a. Through the British, information was recently received that synthetic gasoline is now produced in vast works which have been built at Seestadtl on the Aussig-Dux railway line. The local electricity plant has now been enlarged.

Both Brux and Seestadtl are on the Aussig-Dux railway line, and both are southwest of both Aussig and Dux. Undoubtedly the "vast works" refer to Brux, as if a new plant only 7 km. away were that large it would have undoubtedly been previously reported.

Senftenberg. (In the Niederlausitz region. 45 km. north of Dresden, and about 5 km. from Ruhland.)

- a. A synthetic oil plant in Senftenberg has been mentioned by various prisoners of war. The British forwarded a report in August, stating that the Grossräschen mines have a new synthetic fuel plant here, and that production started in July.
- b. This probably refers to the Brabag Schwarzheide plant, which is in this region. The second report may be a new extension to the Brabag works, a new tar plant, or perhaps a new synthetic oil plant.

Spandau: (Suburb northwest of Berlin.)

- a. A Britisher who left Berlin in January, 1943, reported that the principal plant in the Berlin area for converting coal to petrol is at Spandau and is working at full blast -- manned largely by French workmen.
- b. From the location and the lack of confirmation, this report does not appear to be credible.

Stettenz, near Teplitz. (Teplitz is about 15 to 20 km. southwest of Aussig and the same distance northeast of Brux.)

- a. The same source as above maintained that the nearest synthetic gasoline works to Seestadtl of any size are at Stettenz, near Teplitz, in the same brown coal field and only 10 km. from Seestadtl.
- b. Stettenz has not been located. Teplitz is about 25 km. northeast of Seestadtl, not 10 km. Though one of these two reports could be confused with Brux, it is unlikely that both are.

Strehla. (On the Elbe River, 5 km. north of Riesa and about 50 km. east of Leipzig.)

- a. A prisoner of war of Polish-Czech extraction told of a plant making gas from coal in Strehla. Between the plant and the railroad station there are six gas tanks. Coal is brought from Silesia.
- b. There are two chemical factories in this town, but it is unlikely that this synthetic oil plant has been confused with them.

Webau. (7 km. southeast of Weissenfels.)

- a. Light petrol for aircraft engines is produced from "pyropissit coal" by the Riebecksche Montanwerke in plants in Webau and in Zeitz, Czechoslovakian Intelligence reports.
- b. The main plant of the A. Riebecksche Montanwerke A. G. of Halle is at Webau, where mineral oil, paraffin and candles were produced in 1940.

The reference to a synthetic oil plant of this company at Zeitz may be explained by the fact that the A. Riebecksche Montanwerke owned shares of the Brabag company (Brabag runs the "known" synthetic

oil plant at Zeitz), but these shares were sold to I. G. Farben in 1937/1938.

Weissenfels. (30 km. southwest of Leipzig.)

For the report and comments on a synthetic oil plant at Weissenfels, see Halle, above.

Zwickau. (30 km. southwest of Chemnitz and 75 km. south of Leipzig.)

- a. A consular report from Bern in 1942 mentioned that synthetic oil was being produced by the Gewerkschaft Morgenstern at Zwickau, using coal from Reinsdorf (5 km. southeast of the city). An OSS report in August, 1942, also stated that the "hydrolysis plant" at Zwickau was then functioning.
- b. The Erzgebirgischer Steinkohlen Aktienverein, a mining company, has a plant producing coke and its derivatives. The above information may have reference to this concern.

NORTHERN GERMANY

Kiel-Holtenau. (5 km. north of Kiel on the Kiel Canal.)

- a. The Polish Intelligence reported in January, 1943, that a plant alleged to produce synthetic gasoline is situated on the left-hand side of the Kiel Canal, about 150 meters from the first lock-gates from the Baltic Sea. Reservoirs, railway tank wagons and great quantities of unloaded coal in the vicinity of this plant seem to prove it.
- end. The lock nearest the Baltic is at Holtenau, just north of Kiel. It is possible that the materials that are stored near this plant may be awaiting transshipment at the end of the Canal rather than being specifically for the use of this plant.

Near Riesenburg, Kreis Rosenberg, East Prussia. (50 km. south of Elbing.)

- a, A P/W had been engaged in delivering wood to a chemical works near Reisenburg which was engaged in producing synthetic benzol from wood. Most of the products were distributed in the vicinity by a fleet of some 100 tank trucks, but some were also dispatched by rail.
- b. This undoubtedly refers to the manufacture of alcohol and not synthetic oil.

Stettin.

- a. On a map of Stettin transmitted through the Belgian Intelligence, a synthetic oil plant is shown to be located at the south end of the city behind a gas works, west of the Oder River. No further details accompany this map.
- b. From the location shown on this rough map, the "synthetic oil factory" seems to refer to the Stettiner Kerzen- und Seifenfabrik, located at Pommerensdorferstrasse 20, which, in 1940, made stearine and its by-products, soaps, technical oils and fats, and floorwax. In 1938 it had 129 employees. This concern may have built a synthetic oil plant, but the more probable explanation is that the map refers to the manufacture of the technical oils and fats of the Kerzen- und Seifenfabrik.

SOUTHERN GERMANY and AUSTRIA

Floridsdorf. (Across the Danube from Vienna.)

- a. According to a censored letter of November, 1942, plants for the production of synthetic gasoline and synthetic rubber are located here.
- b. This may have reference to the Shell Floridsdorf crude oil refinery, which refines 100,000 tons per annum, or to the Fischer-Tropsch factory said to be at Hirschstetten.

Gendorf. (Said to be in the Munich area.)

- a. A civilian who escaped from forced labor in Germany worked until March, 1943, in the Anorgana chemical factories here which he said produced chemical products, synthetic oil, acetylene, chlorine by-products and alcohol. Five to six thousand workers were employed. At the moment of his departure, the workshops were being transformed to make war gas.
- b. The British comment that there have been previous reports of this plant, but synthetic oil has not been mentioned as one of its products.

Gendorf has not been located on the map, and this chemical company is not listed in the German chemical index of 1940.

- Hart. (15 km. north of Ried, in the Hausruck region. There are also other Harts in Austria.)
- a. A report was received in August that the plant of the Erste Brunner Maschinfabrik at Hart had recently been enlarged. There were 22 turbines with a capacity of 6,000 kilowatts. The motor spirit produced was 80 octane, but no lubricating oil was produced.
- b. The British comment that the reference to turbines is not clear and the number given would appear to be an error. It may be that the plants reported at Hart and at Ried may be one and the same.

Hirschstetten. (Across the Danube from Vienna. 5 km. southwest of Floridsdorf.)

a. A prisoner of war says that this synthetic oil plant is

SOUTHERN GERMANY and AUSTRIA (Continued)

approximately midway between Aspern and Kagran, 1 km. from Hirschstetten, and 1 1/2 km. northwest of the edge of the Wien Aspern Aerodrome. There are 25 to 30 large storage tanks varying in height from 25 to 55 meters. All installations are strongly guarded. The 2 1/2 km. stretch of line between the plant and the Stadlau railroad station is occupied by tank trucks by the evening of each day and cleared by the night trains. At least four trainloads (1,200 tons) are shipped away daily. Coal is brought from the Lilienfeld mines, and lignite is also used. Both ordinary and high octane gasoline is produced by the Fischer-Tropsch process.

Another prisoner of war revealed that while he was engaged on aerodrome construction near Vienna, gasoline was supplied from the synthetic oil plant at Hirschstetten. This plant also supplied tar made from brown coal, which was used for surfacing the runways.

b. The existence of this plant is highly probable.

Kaufering. (About 50 km. west-southwest of Munich.)

- a. It was reported from Munich in the summer of 1941 that a new synthetic oil plant was to be constructed at Kaufering.
 - b. No further information has been received.

Linz: (On the Danube. Austria.)

a. There have been many reports of synthetic oil plants in and near Linz. (See comments on Hart, Neukirchen, Ried, and Vöcklabruck for the plants reported "west of Linz" or in the Hausruck region.) The majority imply that the synthetic oil plant is part of the huge new Hermann Goering works on the south edge of Linz. It is estimated to have a yearly production of 120,000 tons.

Recently, benzol has been delivered from the "foundry" Linz (presumably the Goering concern) to various destinations in Italy.

A prisoner of war Lieutenant who was interrogated in October revealed that synthetic petroleum installations had been moved to Linz.

b. The British reported in June that a study of photographic cover of the whole industrial area of Linz, including the Goering works, showed no evidence of the existence of either a synthetic

SOUTHERN GERMANY and AUSTRIA (Continued)

oil plant or refinery. They then stated in August that the fact that no plant was revealed by this cover in this locality might be explained by the fact that the synthetic oil plant is not associated with the Hermann Goering works!

It seems highly probable that there is a new synthetic oil plant at Linz -- perhaps connected with the Hermann Goering works.

Moosbierbaum. (About 12 km. west-southwest of Tulln and 30 km. west of Vienna. On the Tulln - St. Poelten railway, and 5 km. south of Zwentendorf, which is on the Danube.)

- a. An informant who was working while he was a prisoner in 1941 in the Donau Chemical Works between Zwentendorf and Moosbierbaum said that the factory was expanding for the manufacture of synthetic gasoline and refining crude oils sent from Rumania via the Danube. The plant belonged to the Skoda-Goering consortium and produced sulphuric acid and nitrates. 7,000 workers were employed. The plant was connected with the Danube by a pipeline.
- b. The Donau-Chemie A. G., which is controlled by the I. G. Farbenindustrie, was formed in 1939 by the fusion of three companies, one of which was the Pulverfabrick Skodawerke-Wetzlar A. G., which operated a chemical factory in Moosbierbaum. In 1936 this plant covered an area of about one square km. and produced sulphuric acid, hydrochloric acid, super-phosphates, ammonia products and other chemicals. Power was supplied by the company power station. Working far below capacity, the plant employed 1,200 workers at that time.

The name "Moosbierbaum" has been used to describe the type or destination of special consignments of motor spirit from Rumania by barge. The Fritish comment that it seems probable, therefore, that there is some form of oil plant at this location: perhaps a gasoline blending plant.

Recent air reconnaissance has revealed the presence of a group of oil tanks near this factory.

Neukirchen. (There are many such towns in Austria, but this is probably the one in the Hausruck region 8 km. northwest of Vocklabruck.)

a. According to the British, there have been reports of oil production near Neukirchen. A prisoner of war stated in August that about 4,000 men are employed at a synthetic oil plant which is about

SCUTHERN GERMANY and AUSTRIA (Continued)

8 km. from Vocklabruck. All buildings are constructed of ferroconcrete, and were built between 1939 and 1910. Lignite is brought from Thomasroith nearby.

b. From the location specified by the prisoner of war, the second report undoubtedly refers to Neukirchen. It is most likely that there is a synthetic oil plant here,

<u>Praterspitz</u>. (Prater is a part of Vienna on the south bank of the Danube and on the eastern side of the city — bounded by the river and the Danube Canal.)

- a. A synthetic oil refinery is said to exist in the neighbor-hood of Lobau at Praterspitz.
- b. "Praterspitz" probably refers to the tip ("Spitz") of the Prater peninsula, at the junction of the river and canal. It is known that there are many oil storage tanks at this point, but it is doubtful that there is a synthetic oil plant here too.

Ried im Innkreis. (In the Hausruck region. 25 km. north of Vocklabruck and 60 km. west of Linz.)

- a. From the amount of machinery supplied by the firm Heidinger, where a prisoner of war was employed, he suspects that a second synthetic oil plant (in addition to Vocklabruck) may exist in the Haustuck region. He offers no very good reason for thinking that this may be at Ried im Innkreis.
 - b. See remarks on Hart.

Vöcklabruck. (in the Hausruck region, 70 km. southwest of Linz.)

- a. A prisoner of war stated in July that about 4,000 men were employed at a synthetic oil plant about 8 km. from Vöcklabruck.
- o. From the location given, this refers to Nelkirchen. See above.

Near Weilheim, Upper Bavaria. (Weilheim is 40 km. south-southwest of Munich and 22 km. northwest of Penzberg.)

SOUTHERN GERMANY and AUSTRIA (Continued)

- a. According to a source rated "B-2" by our Consul in Bern, about 500 tons of motor fuel is being produced daily from Penzberg and Hausham "Pechkohle" at a synthetic gasoline plant near Weilheim in Upper Bavaria.
- b. It was reported through the OSS in August, 1942, that a "hydrolosis plant" at Penzberg was then operating. It is probable that this refers to the synthetic oil factory near Weilheim mentioned above. The location is probably Penzberg instead of Weilheim.

Hausham is 33 km. east of Penzberg and 43 km. south-southeast of Munich.

The annual production would be about 180,000 tons.

SILESIA

Near Altheide, Sudetenland. (See below.)

- a. A cable sent from Bern in March, 1943, stated that a Fischer-Tropsch plant here was put into operation in 1942 and will produce 42,000 tons of methanol annually.
 - b. This information is certainly credible.

Although the cable specifically states Altheide, Sudetenland, the only town of this name which can be located is Altheide, Silesia, 10 km. southwest of Glatz and 45 km. southwest of Breslau, near the Sudetenland.

East of Annaberg. (Annaberg is about 12 km. north of Kosel, 5 km. north of Leschnitz and 7 km. northeast of Deschowitz.)

- a. The same source, as quoted above, said that this hydrogenation plant, producing 120,000 tons of methanol per annum, was also put into operation in 1942.
- b. The construction of this small plant also seems probable. There are two other Annabergs in Silesia: Annaberg Bahnhof, which is about 5 km. west of Oderberg and 10 km. north of Hährisch-Ostrau; and Anna Berg, 70 km. southwest of Breslau. It is thought that neither of these are meant.

Auschwitz. (Oswiecim in Polish, 50 km. SW of Gleiwitz.)

a. It was reported by the British that there are two large plants in Auschwitz; one making synthetic gasoline and one making buna. It is also reported, but not confirmed, that Dr. Buetefisch, a hydrogenation expert of the I. G. Farben Company, who played a leading role in the formation of the Brabag and of Hydrierwerke Pölitz, has been made a director of the Electro A. G. of Ober Lazisk, Poland, which is to supply power to the large plants I. G. is constructing at Auschwitz and Wyrow. Synthetic ammonia will be produced at Wyrow.

A prisoner of war said that I. G. built a plant here in 1941 covering about 13 sq. km. Machinery was arriving by December, 1942, to be installed.

b. Though there has been no confirmation of these statements that the I. G. Farben Company produces synthetic oil here, it is certainly possible.

Beuthen. (20 km. northeast of Gleiwitz.)

- a. American businessmen connected with the Anaconda Copper Company, who worked with Giesche mining concern in Upper Silesia from 1925 to August, 1939, report that a synthetic oil plant was designed and constructed here by the Germans after the occupation of Poland. The new plant is located in the Heinitz coal mine complex, near the Heinitz power plant, probably towards the western end of the company's property.
- b. Due to the reliability and background of the sources, this information is most probable.

East of Brieg. (Brieg is on the Oder River, 40 km. south of Breslau.)

- a. A hydrogenation plant that was put into operation in 1942, producing 90,000 tons of methanol annually, was reported from Bern last March.
 - b. This also seems most plausible.

Buchenau. (Upper Silesia, near Ratibor.)

- a. A plant, operated by the Bergius process, producing 12,000 tons of methanol monthly (144,000 annually) was also reported by the above source to have started operation in 1942. The British recently transmitted an item from an "X3" source stating that this plant produced 140,000 tons annually.
- b. Though it is possible that the two sources may be identical, the information is highly credible.

Chorzow. (Polish Upper Silesia. Suburb northwest of König-shutte.)

- a. A Bern cable in March stated that compressors were installed by a Swiss firm in the hydrogenation plant at Chorzow.
- b. No further information has been received. It is possible that the compressors may have been shipped here from Switzerland for the plant reported to be at Laurahutte, some 5 km. away. However, the railroad runs through both towns.

Czechowice. (Polish Upper Silesia, near Bielsko.)

- a. The former installation of the Vacuum Oil Company near Bielsko, formerly refining crude oil, is now producing synthetic oil called "Motorgas." The prisoner of war who gave this information said that 40 trains of coal from Silesia arrived daily at the works.
- b. The Vacuum Oil refinery here is estimated by the E.O.C. to have a capacity of 75,000 m. tons and an operating rate of 50,000. This is the first information received that this crude oil refinery had been converted to make synthetic oil.

Dyhernfurth/Oder. (About 25 km. north of Breslau, on the river.)

- a. It has been reported that I. G. Farben produces synthetic oil here.
- b. This plant was under construction 1938-1940, and a considerable portion of the plant is said to be underground. Some of the I. G. facilities from Ludwigshafen were moved here. However, there is insufficient information to substantiate the statement that synthetic oil is made at this large chemical firm.

Gleiwitz. (Upper Silesia.)

a. In the early part of 1942 the German press reported that a new synthetic oil plant at Gleiwitz, which would eventually produce a million metric tons annually, was then under construction.

In 1938 information was obtained by industrialists in the region that the Schaffgottsche Hydricrwerke A. G. of Gleiwitz was building a huge synthetic gasoline plant on the same site as the Schaffgottsche coal mining property or nearby.

That a plant near Gleiwitz and a plant at Gleiwitz were 50 meters underground was reported in two cables in November, 1942, and January, 1943.

A native of this region who left Germany in April, 1942, recently stated that there is an artificial gas factory in Gleiwitz on the right-hand side of the railway tracks coming from Breslau, just before the Gleiwitz reilroad station.

b. The plant to which the first report has reference to is

undoubtedly Blechhammer, which is 20 km. east of Gleiwitz.

The second statement probably refers to the synthetic oil plant of this company at Deschowitz (40 km. northwest of Gleiwitz), which was under construction from 1938-1940. It is not "huge", however, having the capacity of slightly over 100,000 tons annually.

The two cables obviously are from the same source, though one specifies "in" and the other "near" Gleivitz. (See remarks on Krappnitz.).

The last report, however, is certainly good evidence that there may be a synthetic oil plant in Gleiwitz.

Heydebreck. (Formerly called Kandrzin. On the Adolf Hitler Canal, about 5 km. east of Kosel and 5 km. west of Blechhammer.)

a. There have been many reports on the new plant of I. G. Farben which is being constructed here. Various sources state that it will produce chlorine, fats, glycerine, high grade alcohol, Opanol synthetic rubber, "Di-Benzin" (a mixture to be used as motor car fuel), and aviation gasoline. A Bern cable in February, 1943, said the 5,000 to 6,000 tons of synthetic oil are produced monthly from this underground plant and are immediately shipped away on the canal.

It was said in January, 1943, that the production of synthetic glycerine had started. Production of synthetic fats, though planned, had not yet commenced.

b. Statements that over a million tons annually will be produced at Heyderbreck and that it will be the largest synthetic oil plant in Europe, obviously refer to the plant at Blechhammer, 5 km. away. However, it is certainly possible that some synthetic gasoline is also made in this new large chemical complex.

The assertion that synthetic glycerine is made suggests that a Fischer synthetic plant is in operation here, according to the British. This method of making synthetic fuel produces gaseous by-products from which synthetic and substitute glycerine can be made as well as solid by-products used in the manufacture of synthetic fats.

Hohenelbe. (About 35 km. south of Hirschberg, in the Rissenge-birge in former Czechoslovakian territory.)

a. This is another small hydrogenation plant which is said to

have been put into operation in 1942, producing 72,000 tons of methanol annually.

b. This location near the lower Silesian coal deposits is a most reasonable one.

Kieferstädtel. (About 10 km. west-southwest of Gleiwitz.)

- a. In November, 1942, a large synthetic oil plant near Gleiwitz, 50 meters underground was reported. A Bern source in February stated that there was a new small hydrogenation plant producing a maximum of 36,000 tons annually at Kieferstädtel, which is substantiated by another source who claims that 50,000 tons are produced here.
- b. Though the first report may not have reference to a plant at Kieferstädtel (especially as it refers to a "large" plant), the other two statements are certainly credible.

From the capacity the British believe this plant operates by the Fischer-Tropsch method, though the cable specifically states it is a "hydrogenation plant."

- Kraopnitz. (On the west bank of the Oder River between Kosel and Oppeln, about 25 km. from each.)
- a. This small hydrogenation plant, producing about 84,000 tons annually, was opened in the middle of December, 1942. In Gogolin, on the other side of the river, there is a fuel storage tank containing hydrogenated gasoline.
- b. The existence of this small factory also appears probable. The British believe it is a Fischer-Tropsch plant.
- Krickau. (5 km. from Mamslau, which is 50 km. directly east of Breslau.)
- a. In 1942 a British oil expert mentioned the existence of a 185,000-ton hydrogenation plant at Krickhau, Czechoslovakia.
- b. The only town with a similar name which has been located is Krickau in Silesia. No further information is available.

Kunzendorf. (Upper Silesia. See below.)

- a. A hydrogenation plant put into operation in 1942 in Kunzen-dorf, Upper Silesia, produces 144,000 tons annually, according to a Bern cable of March. Methanol is produced by the Bergius method.
- b. There are about a dozen Kunzendorfs in Silesia, but only two in Upper Silesia. One is about 7 km. east—southeast of Gleiwitz, and the other 3 km. south of Neustadt and 18 km. northwest of Leobschutz. Though it is not known at which one of these towns the plant is located, its existence seems probable.

Laurahutte. (Between Konigshutte and Chorzow, about 5 km. from each.)

- a. A new hydrogenation plant, completed in 1942, was also reported through Bern to be in Laurahutte, with the production of about 120,000 tons of methanol annually.
- b. It is possible that the plant at Chorzow and this one may be the same.

Leschnitz. (10 km. north of Kosel, 5 km. west of Deschowitz.)

- a. From a British source it is learned that between Oppeln and Kandrzin (Heydebreck) there is a railway station which was formerly named Leschnitz, but now called Odersteine, where a large "Kokerei" making synthetic gasoline is situated. Two tankers leave this plant daily.
- b. That there are coke ovens in Leschnitz is confirmed. It is probable that the products from these ovens are sent to the synthetic oil plant at Deschowitz (5 km. away) to be refined, or perhaps to the "unknown" plant at Annaberg, also about 5 km. distant.

Mährisch-Ostrau. (On the Cder River, just south of the southern-most tip of Silesia.)

a. Czech intelligence reported in August that there is a plant for the production of synthetic petrol 'Ropa' in the neighborhood of Mährisch-Ostrau. Information from a business man in November, 1942, revealed that 6,700 barrels of synthetic oil were produced at this city daily.

According to a weekly report of our Commercial Attache in Prague in May, 1937, the Czechoslovakians were then planning to erect a

Fischer-Tropsch synthetic oil plant in the Mahrisch-Ostrau coal district. The projected output was 25,000 m. tons of synthetic gasoline annually.

b. The Julius Rutgers Company in Mahrisch-Ostrau is said to be one of the most important of the chemical factories in Czechoslovakia. It derives coke gas from adjacent coke ovens and produces benzol, phenol, toluol, naphthalene and other coke derivatives. Perhaps the above reports refer to this plant. That the Germans did, in fact, erect such a plant here seems most probable in the light of the above evidence.

Reigersfeld. (Formerly called Birawa, 9 km. south of Blech-hammer, on the Birawka River near its juncture with the Oder.)

- a. The Reigersfeld industrial works, belonging to the Ober-schlesische Hydrierwerke, manufacture synthetic oil and rubber, as well as oils and lubricants, according to Polish Intelligence received last Harch. The works are provided with very strong AA defense.
- b. This probably refers to the two plants at Blechhammer. However, a workman at Blechhammer mentioned sites I, II, and III-- thus indicating that there may be three plants in this area.

Waldenburg Region. (Lower Silesia. About 65 km. southwest of Breslau.)

a. According to Polish Intelligence received in August, 1942, the existence of thirteen active gasoline plants north of the railway line Fellhammer-Dittersbach-Waldenburg-Altwasser-Freiburg, belonging to the Leunawerke with its headquarters at Halle, has been confirmed. The plants were built during the war and are situated on the slopes of hills. The largest concentration of factories is in the neighborhood of Waldenburg. Each plant has three to four cold storage plants and reservoirs. The output is not known. Thirty tank cars of gasoline are exported daily from each reservoir. Raw material comes from mines in Upper Silesia.

From Bern it was reported in March that compressors were installed by a Swiss firm in the hydrogenation plant at Waldenburg.

b. According to a former director of a Silesian coke works, before the war about 500,000 tons of coke, 15,000 tons of benzol, 6,000

tons of tar and 6,000 tons of ammonia were produced annually at the coke plants attached to the coal mines in Haldenburg. A very large power station was built under the auspices of the German government at Maldenburg in the early part of 1937, and early in 1938 the construction of a nitrogen plant, using the electric power of this station, was planned.

Thus, it is shown that the Germans have been long interested in developing this region, and the construction of many synthetic oil plants here is in keeping with this trend. The region contains coal mines, coke plants and tar plants. Though some of the thirteen plants mentioned by the Polish Intelligence may produce only base products from which synthetic gasoline is made, it is believed that the report should certainly be given some credence.

POLAND

Mirow. (Probably the "Mirow" on the Warte River, about 7 km. east of Czestochowa. See below.)

- a. It was reported from Bern in March that compressors were installed by a Swiss firm in the hydrogenation plant at Mirow.
- b. There is no indication which Mirow this refers to. Besides this Polish town there are two Mirows in northern Germany and a Mirowitz in Bohemia, about 70 km. south of Prague.

Tarnow. (Galacia, about 75 km. east of Krakow.)

- a. The fact that a hydrogenation plant was located in Tarnow was cabled from Bern last March.
- b. This Tarnow in Poland is probably meant, though there is one in northern Germany and a Tarnowski Gory (Tarnowitz in German) 25 km. northeast of Gleiwitz in Polish Upper Silesia.

FRANCE

Blendecques. (Department of Pas de Calais, 5 km. south of St. Omer and 50 km. east of Boulogne.)

- a. In December, 1941, it was said that a synthetic oil plant was located here.
 - b. Further information on this plant is lacking.

Fuveau. (Provence. Department of Bouches du Rhone, 20 km. northeast of Marseilles and 12 km. southeast of Aix.)

- a. A new firm the Compagnie Centrale d'Hydrogenation et de Synthese, was formed by the Banque de Paris et des Pays Bax and the Compagnie Carbonifere de Bethune, with the head office in Paris. One hundred fifty million francs of bonds were issued, of which the French Government holds shares to the value of 24 million francs, according to press sources. The first factory of this new company was to be built at the site of the Tuveau lignite mines and to produce 25,000 tons of synthetic gasoline by the Fischer-Tropsch system.
- b. The formation of this company was first disclosed in the summer of 1942. It is not known what progress has been made with the actual construction of the plant.

In the Enemy Oil Committee's list of "unknown" synthetic oil plants of June 10, 1943, "Bouches du Rhone (?)" is mentioned with the comments that the capacity will be 50,000 tons. The process was reported to be a combination of low temperature carbonization and methanol synthesis, and the completion date as 1945. As the company mentioned is the same as the above firm and Fuveau is in the Department of Bouches du Rhone, the reference is undoubtedly to this plant.

The same E.O.C. report lists Gardanne, where a hydrogenation plant of the Societe de Combustion et Carburants Nationaux was said to be operating at part capacity of 1,500 tons monthly from "shortly after April, 1942." A capacity of 35/50,000 was expected upon completion of the Plant in 1945, it was reported. However, as Gardanne is only 2 km. west of Fuveau, these plants are also thought to be the same.

- Lierru (?), near Lans. (Lans is in the Department of Isere, 15 km. southwest of Grenoble. No "Lierru" or similar place name has been found near Lans.)
 - a. A report of February, 1943, rated B3 by the OSS, stated

FRANCE (Continued)

that the only French plant producing synthetic gasoline is at Lierru (?) near Lans.

b. In addition to the "unknown" French plants listed here, there are three "known" synthetic oil plants in France.

Marienau (Forbach). (Marineau is a very small town adjacent to Forbach, which is in the Department of Moselle in Lorraine, 8 km. southwest of Saarbrucken, Germany.)

- a. It was reported by the British in July that a French engineering firm has been put in charge of the construction of a synthetic gasoline plant to be built at Marienau on behalf of the Mineralol company.
- b. This location near the coal fields of the Saar would be suitable for a synthetic oil plant.

Marseilles.

- a. The Kuhlmann plant here is said to produce 20 to 30 tons of synthetic gasoline daily.
- b. The British Enemy Oil Intelligence Committee comments that this plant probably is being used for the regeneration of lubricating oils.

Mirepeisset. (Department of Aude, 14 km. northwest of Narbonne.)

- a. A low temperature carbonization plant here is starting the production of synthetic oil. At present only one retort with the nominal capacity of 50 tons daily is working. Eventually, there will be ten retorts. It is expected that in six months production will be 40 tons daily from 500 tons of lignite (which comes from the mines at La Caunette). A previous report claimed that preliminary production was ten tons daily, and would eventually increase to 50 tons a day.
- b. The nominal capacity with ten retorts would be about 180,000 tons per annum.

In the Enemy Oil Committee's report of June 10, 1943, "St. Hilaire (?)" was listed as an "unknown" French synthetic oil plant belonging to the Societe Chimique de la Grande Paroisse. There are over a-dozen St. Hilaires in France. One, however, is about 15 km.

FRANCE (Continued).

west of Marbonne and not far from Mirepeisset. It is probable that these two references are to the same plant.

Toulon.

- a. The opening of a synthetic gasoline plant in Toulon was mentioned in an inconspicuous item in the Deutsche Zeitung of March 6, 1942, according to a cable received.
- b. This plant was not mentioned in the Deutsche Allgemeine Zeitung of this date. Perhaps the Deutsche Zeitung in den Nieder-landen is meant. No further details are available.

ITALY

Arezzo. (60 km. southeast of Florence.)

- a. The existence of a hydrogenation plant here was mentioned in a Bern cable of March, 1943.
 - b. No further information has been received.

Florence.

- a. In September, 1942, it was said that German experts had taken over the Florence works of the Industria Chimica Melegnane of Milan, producing synthetic fuel made of lignite. The British reported last June that negotiations were continuing between various German constructional firms and Italian interests, including Ansaldo, Societa Italiana Carburanti Sintetici, Societa Chimica Melegnane, for the building of a synthetic oil plant near Florence. These negotiations included visits to Oberhausen, Frankfurt and Sterkrade Holten of Italian engineers. Among the German firms interested were Lurgi and Gutehoffnungshütte.
- b. The British commented that plans for the plant were (in June) still on the drawing board, as preliminary plant of the site had been sent recently from Germany to Italy.

San Gauseppe del Cairo. (50 km. west of Genoa.)

- a. Our Légation in Bern cabled in May that the story that there is an oil from coal plant at San Giuseppe del Cairo was denied by an excellent Italian source.
- b. It is known that there is a synthetic nitrate plant here. It is possible that this has been converted to manufacture synthetic methanol. Such a change would not involve great technical difficulties.

HUNGARY

Petfurdo. (Slightly north of the east end of Lake Balaton.)

a. In a list of plants in Hungary compiled by the B.E.W. in March, 1943, the Hungarian Hydrobenzin Co. (Magyr Hydrobenzin Rt.) is mentioned. The capital is 1,000,000 pengoes. The headquarters are located at Budapest V, Nador-ut 21, and the plant at Pet. where it makes synthetic gasoline out of brown coal. Its capacity in 1936 was only 100 carloads.

Polish Intelligence dated September 10 states that the synthetic gasoline factory "Nitrogengyar" at Petfurdo is located 4 km. south of the Varpalota brown coal mine, with which it is connected by cable railway. Seven thousand workers are employed. The factory works 1,400 tons of coal and produces 40 cisterns of gasoline, as well as fertilizers and synthetic rubber. (The source did not state the period during which the above quantities are produced.) There are seven 8 cm. guns, four 37 mm. guns, and a listening post for the defense of the plant.

b. Pet and Petfurdo are believed to be the same. The Polish report refers to the well-known large nitrogen and explosive plant here. Whether the Hungarian Hydrobenzin Co. has been absorbed by "Nitrogengyar", or whether these two concerns have no connection is not known.

The Polish Intelligence also reports (probably from the same source as above, as the date of the information is the same) that a gasoline dump is situated in a wood at a distance of 1,300 meters west of the Petfurdo railway station on the northern side of the track. The reservoirs are placed in an area of 200 by 1,200 meters and are covered with earth and bushes. A railway siding leads to the dump.

BULGARIA

(Badeste)

See Burgas, below.

Near Burgas. (Port on the Black Sea.)

- a. According to a German chemical periodical of September, 1942, preparatory work for the erection of a synthetic oil plant has been completed. A coal distillation plant will be built near Burgas, which will consume 200,000 tons of coal. The plant will use 24,000 tons of this for heating purposes. Building costs are estimated at 40 million levas. The plant will produce 33,000 tons of tar, 100,000 tons of semi-prepared coke, and it is hoped about 20,000,000 litres of gasoline will be produced annually. A later press item states that a joint Bulgarian-German company has been granted the right to build this plant. It is hoped that this synthetic gasoline will be sufficient to cover the requirements of the country.
- b. The British comment that negotiations and experiments have been proceeding for a long time between the State coal mines of Pernik and German constructional engineers. It is, however, a long term project.

Included in the E.O.C.'s list of unknown plants is Badeste (150 km. west of Burgas), with the capacity of 33,000 tons. The statements that it might be a low temperature carbonization plant and may be completed in 1944 were followed by question marks. It is thought that this is the same as the plant to be constructed "near Burgas." The production of 33,000 tons of tar could be misinterpreted as a capacity of 33,000 tons of synthetic oil.

SYNTHERIC OIL STORAGE FACILITIES REPORTED

In addition to storage facilities adjacent to synthetic oil plants, the following storage depots for synthetic fuel have been reported by various sources. All four of the places mentioned below are in Silesia:

Petersdorf, Upper Silesia. (Suburb north of Gleiwitz on the Adolf Hitler Canal.)

- a. A Bern cable of January, 1943, said that 1,500 tons of hydrogenated fuel was stored here.
- b. In this neighborhood are "unknown" plants at Gleiwitz, Beuthen, Chorzow, Kieferstadtel, Kunzendorf and Laurahutte.

Gogolin. (A few km. east of Krappnitz, on the opposite side of the Oder River.)

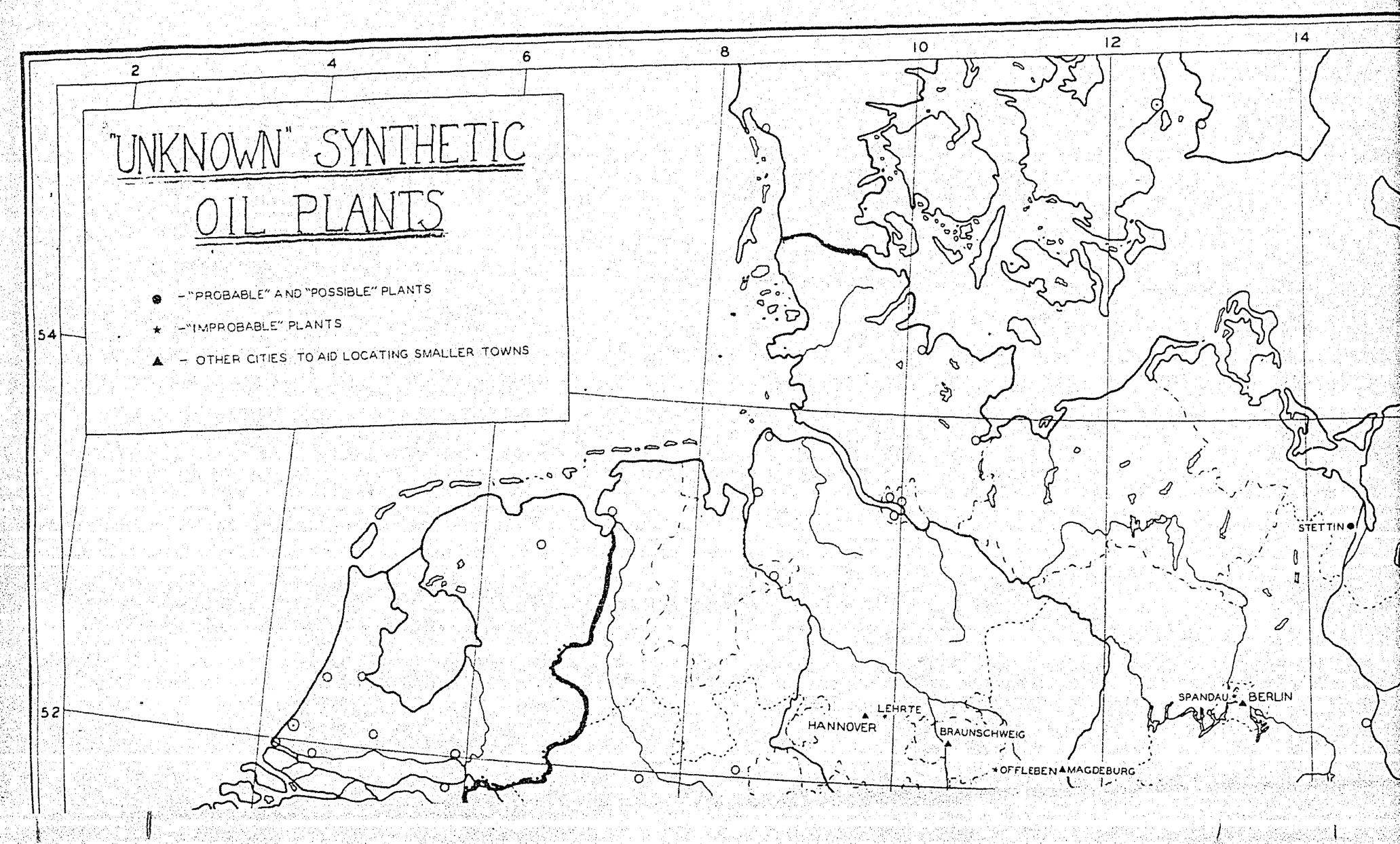
- a. A fuel storage depot containing hydrogenated gasoline is located at Gogolin, according to the same source as reported the plant at Krappnitz.
- b. These tanks are undoubtedly for the storage of the fuel produced at Krappnitz.

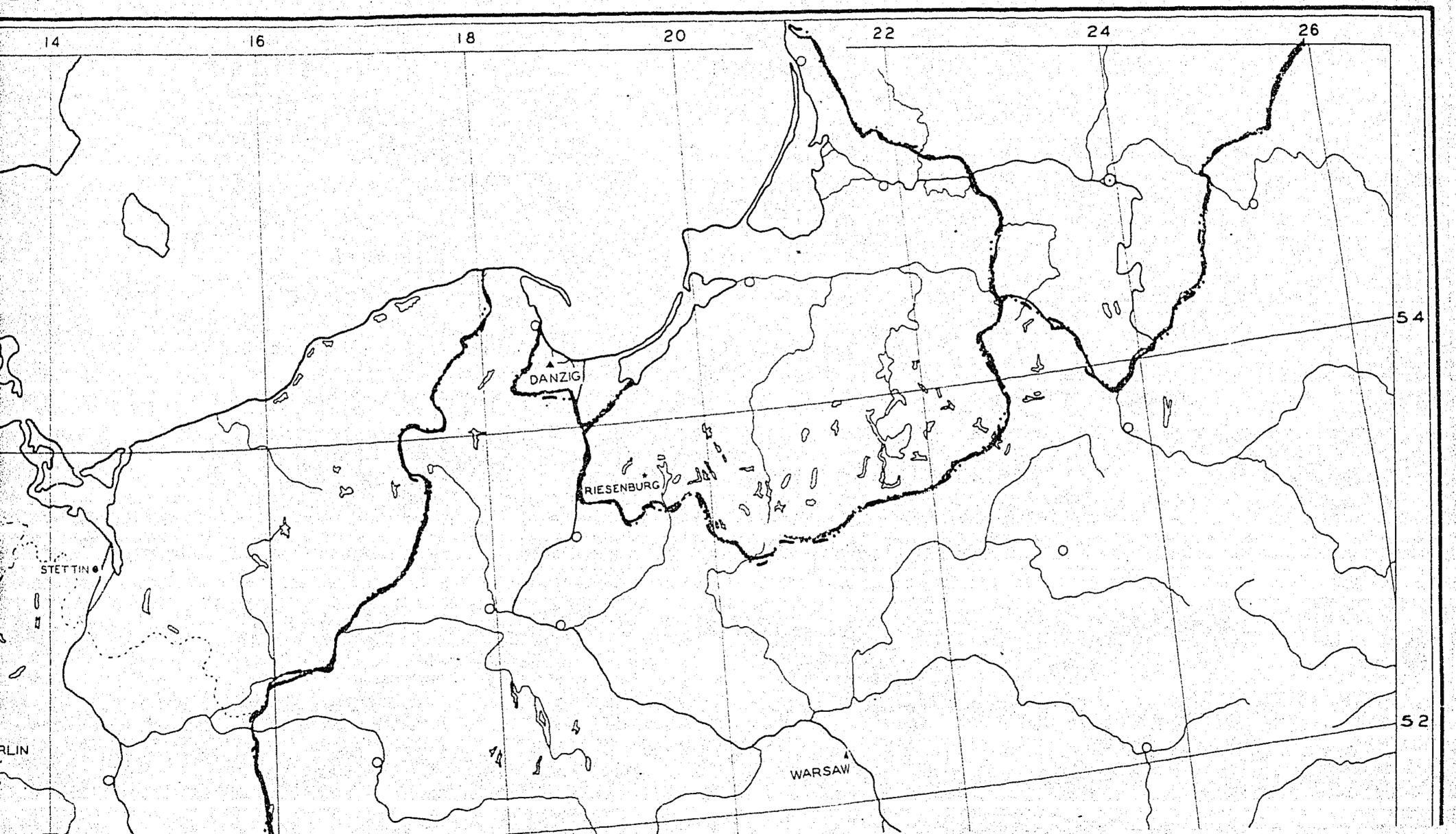
Junction of the Malapane and Oder Rivers. (7 km. north of Oppeln.)

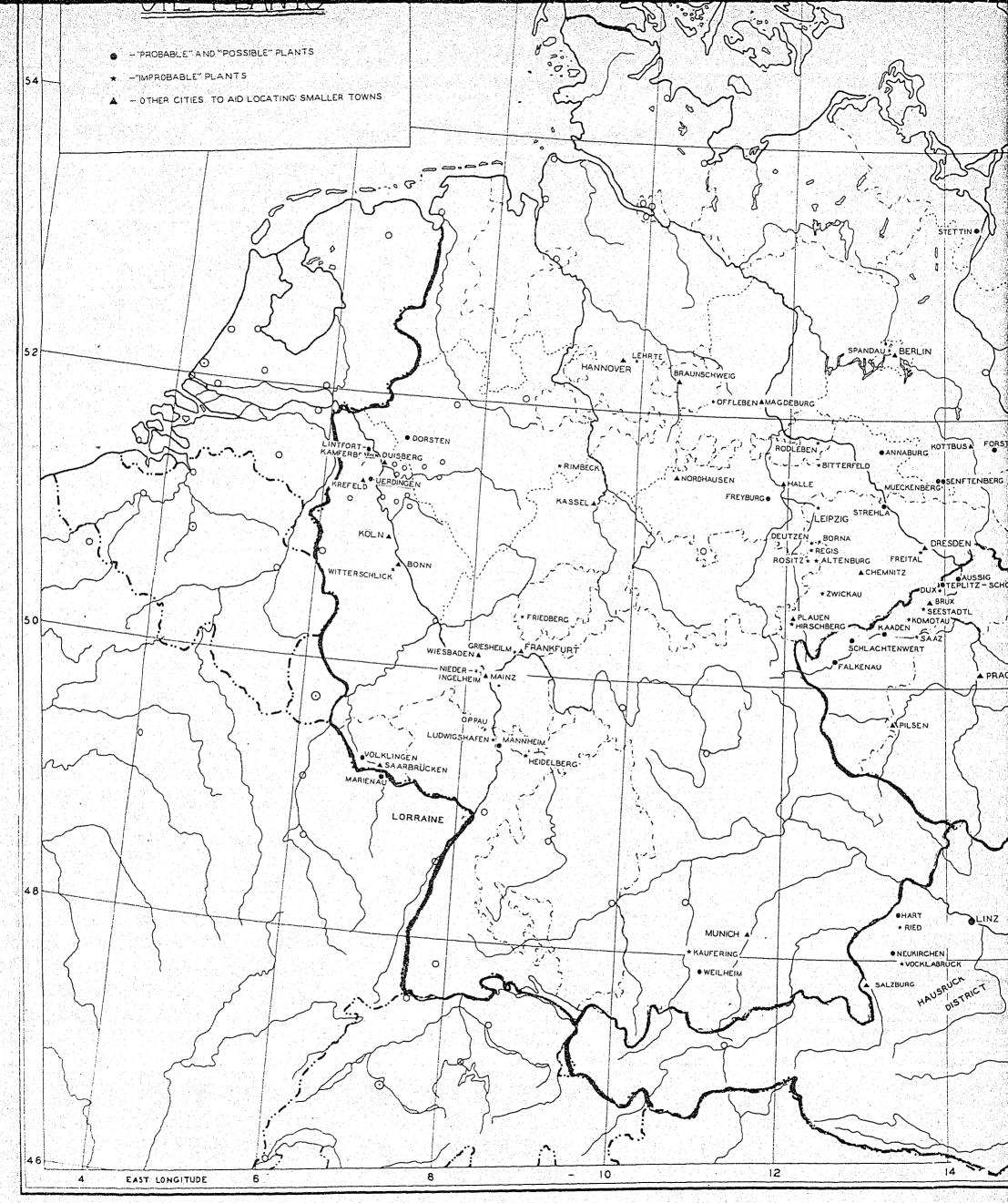
- a. The 2,500 tons of hydrogenated gasoline stored in underground tanks here were untapped at the end of January, 1943, but were supposed to be empty by March, it was cabled from Bern.
- b. This would be a logical storage point for fuel from Upper Silesian plants awaiting further transportation down the Oder River.

Between Ohlau and Brieg. (Lower Silesia. Both towns are on the Oder River, about 20 km. apart, south of Breslau.)

- a. Half way between Ohlau and Brieg on the left bank of the Oder the underground storage of about 3,000 tons of hydrogenated gasoline is untapped, according to the source quoted above.
- b. This also would be an excellent place for storage of Upper Silesian gasoline.









Prepared by Henry M. Leppard
Published by the University of Chicago Press, Chicago, Illinois
Copyright 1939 by the University of Chicago