

INDEX TO

REEL 5

R E S T R I C T E D

This document contains information affecting the National Defense of the United States within the meaning of the Espionage Act, 50 U.S.C., 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

U. S. GOVERNMENT TECHNICAL OIL MISSION
INDEX - MICROFILM - REEL 5
BAG 2747 TARGET NO. 30/4.08 GELSENBERG
(Orig. Iden. Reel 5A)

<u>ITEM INDEX:</u>	<u>No. of Pages</u>
18 - Design calculations for splitting stalls - Cracking of light gasoil (Middle oil) Ludwigshafen September 7, 1938	10
Design calculations March 29, 1938	35
19 - Paste Injection Concerns difficulties with the cracking of pump cases in the injection of coal paste. 1941	22
20 - Preheaters 700 Atmospheres 1) Construction program reports September 2, 1940	11
2) Correspondence concerning delivery of materials 1940	12
3) Design details of tubes, etc. including correspondence, 1936, 1937	75
21 - Sludge Plant Recoveries from sludge produced in the hydrogenation of coal 1940, 1942	14
22 - Reports on Distillation 1934 - 1939 Yearly progress report on the operation of distillation plants at Gelsenkirchen - Horst	93
23 - Stall operating data 1944	91
24 - 7019 Petrol 1) Operating summary 1942/43	3
2) Comparison of Leuna and Gelsenberg gasolines July 21, 1942	5
3) Properties of high octane gasoline produced over catalyst 421 and 7019 from gas oil originating from the hydrogenation of coal. July 8, 1942	9
4) Effect of components on octane number of synthetic gasoline (VT 707) May 29, 1942	6
25 - Modifications for use of 7019 (costs) 1940-1941 Covers scheduling of labor and materials for expansion of high octane aviation gasoline plant, also costs of revision.	28
26 - Publications on Tar and Hydrogenation products no date	50
1) Composition and processing of coal tar	9
2) Processing of coal tar with Solvents	13
3) Hexabenzobenzene ($C_{21}H_{12}$)	6
4) Phenols from coal hydrogenation	8
5) Production of pure phenol from coking of soft coal	8
6) Discussion	6

R E S T R I C T E D

R E S T R I C T E D

Technical Oil Mission
Index - Reel-5

Page 2

		<u>No.</u> <u>of</u> <u>Pages</u>
27 -	Information on Catalysts	
1)	Properties of partially spent hydrogenation catalyst 5058 March 9, 1943	3
2)	Preliminary hydrogenation over catalyst 7846 March 25, 1943	8
3)	Regeneration of catalyst 6434 October 15, 1943	2
4)	Start-up with fresh vapor phase high pressure hydrogena- tion catalysts. February 1, 1943	1
5)	Volume changes of catalyst 5058 upon heating at atmos- pheric pressure June 19, 1942	8
28 -	Engineering data and costs for 5058 stalls	
1)	Construction materials for high pressure production of fuels (Technische Mitteilungen Krupp, Technische Berichte No. 5) December, 1941	11
2)	Costs of 5058 Stalls	

BAG 2746 TARGET NO. 30/4.08 GELSENBERG

1 -	Analytical Methods (Contains considerable amount of duplication)	
1)	Vapor pressure vs. temperature data (5 charts) for olefins and paraffins between ethylene and n-pentane at pressures from 1 to 100 atmospheres.	1
2)	Determination of Water in coal	2
3)	Doctor test for mercaptans	2
4)	Determination of lead in gasolines	2
5)	Determination of methanol and ethanol in gasoline	1
6)	Determination of paraffins	
7)	Bromine number and iodine number	2
8)	Carney vapor pressure	1
9)	Gum content of gasoline	1
10)	Tetraethyl lead in gasoline	1
11)	Carbon disulfide in benzene	1
12)	Storage stability of gasoline (bibliography)	1
13)	Olefins and aromatics	2
14)	Aromatics, olefins, naphthenes and paraffins in gasoline	2
15)	Active sulfur	1
16)	Sketch of apparatus and table for the determination of vapor pressure	2
17)	Note concerning the effect of metal in the apparatus for the determination of free sulfur December 29, 1939	1
18)	Recovery of residue of gaseous fuel for the determination of elemental sulfur.	
19)	Determination of manganese in dolomite and clay	½
20)	Total sulfur	½
21)	Heating value of gases, carbon dioxide, total olefins, precision fractionation, hydrogen sulfide, total sulfur, elemental sulfur, organic sulfur, carbonyl sulfide, doctor test, ammonia, water, residue, all in gaseous fuel.	12
22)	Index of analytical methods	5

R E S T R I C T E D

R E S T R I C T E D

Technical Oil Mission
Index - Reel-5

Page 3

	<u>No. of Pages</u>
23) Absorption and combustion analysis of gases	4
24) Carbon monoxide	1
25) Density of gases	1
26) Operating procedure for I. G. "Effusionmeter".	2
27) Acetylene in gases	1
28) Gasoline in gas	1
29) Oxygen	3
30) Oxygen, rapid method	1
31) Nitrogen oxide in gases	3
32) Podbielnick analysis	5
33) Gaseous fuel specification	2
34) Gaseous fuel, some analyses	1
35) Gaseous fuel methods for sampling and analysis	7
36) Analysis of propane butane fraction	6
37) Cupric oxide in copper liquor	1
38) Cuprous oxide in copper liquor	1
39) Carbon dioxide in copper liquor	1
40) Analytical methods for "Alkszid" solution	12
41) Cyanide	1
42) Residue in oils	2
43) Asphalt	1
44) Water	5
45) Coking analysis	2
46) Soda	1
47) Vacuum distillation	1
48) Softening point	1
49) Benzene soluble material in coking residue	1
50) Flash point of solids	1
51) Volatiles in solids	1
52) Carbon and hydrogen	1
53) Nitrogen	1
54) Screening of coal	1
55) Phenol	2
56) Hardness of water	4
57) Preparation of woktor solution	1
58) Phenol in ammonia and sewer water	5
59) Phenol in raw water	1
60) Molecular weight	1
61) Carbon dioxide	2
62) Engler distillation	2
63) Sulfur	1
64) Chlorine	1
65) Hydrogen sulfide	1
66) Qualitative ammonium carbonate and chloride test	1
67) Phenol in water	1
68) Chlorine	1
69) Nitrogen (Kjeldahl)	1
70) Analyses on gasoline strippers	4
71) Mohr's scale	1
72) Alcohol in gasoline	1

R E S T R I C T E D

R E S T R I C T E D

Technical Oil Mission
Index - Reel-5

Page 4

	<u>No.</u> <u>of</u> <u>Pages</u>
73) Glass dish and copper dish gum	1
74) Copper strip corrosion	1
75) Doktor test	1
76) Mercury test	1
77) Water solubility in gasoline	1
78) Aniline point	2
79) Crystallization point	1
80) Olefins, aromatics, naphthalenes in gasoline	4
81) Vapor pressure of gasoline	2
82) Gas bubble formation	
83) ASTM Distillation	
84) Light sensitivity of gasoline	
85) Sulfuric acid treating loss of gasoline	1
86) Sulfur	2
87) Chlorine	1
88) Phenol	4
89) Iodine number	2
90) Tetraethyl lead	4
91) Naphthalene in oil	1
92) Saponification number	1
93) Acid number	1
94) Iodine number	2
95) Miscellaneous	1
96) Br. No. of benzene and gasoline	1
97) Analysis of gasoline strippers	4
98) Standard solutions	8
99) Ammonium chloride	1
100) Carbon dioxide	3
101) Analysis of phenolic caustic soda solution	4
102) Phenol in ammonia and sewer water	7
103) Phenolic bromine	2
104) Water analysis	8
105) Dissolved oxygen	3
106) Dissolved carbon dioxide	2
107) Water analysis	2
108) Analysis of gas purification material	2
109) Sulfur in coal	6
110) Iron (permanganate method)	2
111) Iron	1
112) Molybdenum	1
113) Chromium	2
114) Aluminum	1
115) Steel analysis	17
116) Chromium in presence of tungsten	3

R E S T R I C T E D