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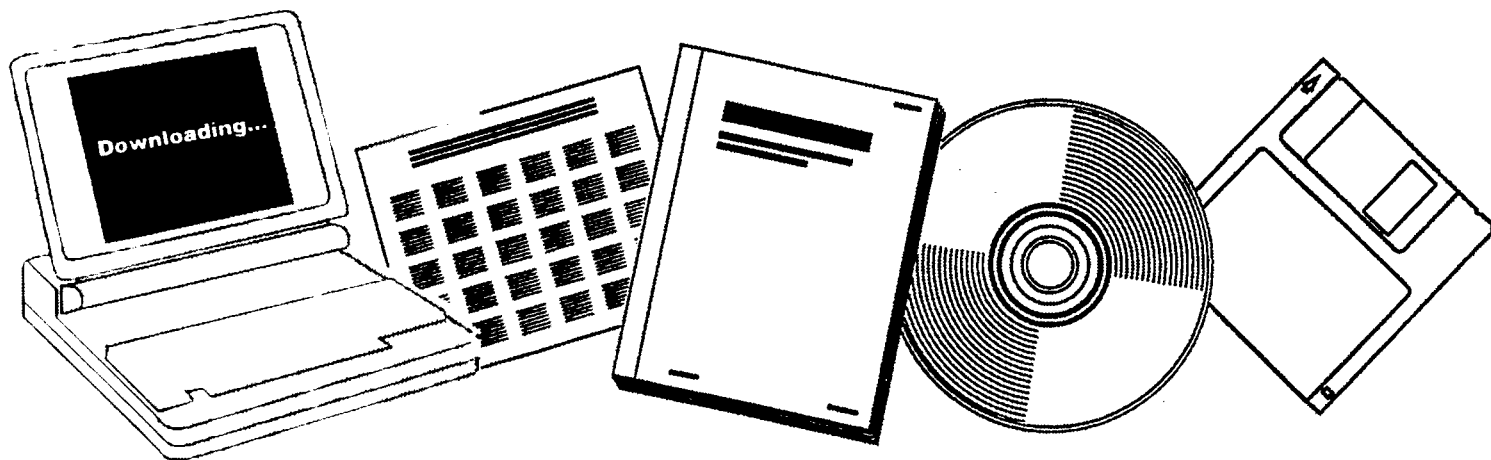
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BASELINE DESIGN/ECONOMICS FOR ADVANCED FISCHER-TROPSCH TECHNOLOGY. QUARTERLY REPORT, APRIL--JUNE 1994

**BECHTEL NATIONAL, INC.
RICHLAND, WA**

1994



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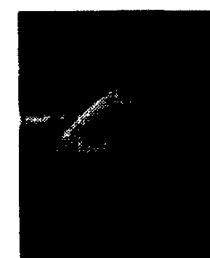
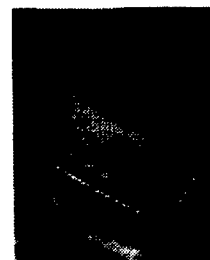
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DOE/PC/90027--T11



**U.S. Department of Energy
Pittsburgh Energy Technology Center**

**Baseline Design/Economics
for
Advanced Fischer-Tropsch Technology**

Contract No. DE-AC22-91PC90027

Quarterly Report

April – June 1994

We have no objection from a patent
standpoint to the publication or
dissemination of this material.



Mark Driscoll 4-25-95
Office of Intellectual
Property Counsel
DOE Field Office, Chicago

Date



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Section 1

Introduction and Summary

This report is Bechtel's eleventh quarterly technical progress report and covers the period of April through June, 1994.

1.1 INTRODUCTION

Bechtel, with Amoco as the main subcontractor, initiated a study on September 26, 1991, for the U.S. Department of Energy's (DOE's) Pittsburgh Energy Technology Center (PETC) to develop a baseline design and computer model for advanced Fischer-Tropsch (F-T) technology. This study is being performed under DOE Contract Number DE-AC22-91PC90027.

The objectives of the study are to:

- o Develop a baseline design and two alternative designs for indirect liquefaction using advanced F-T technology. The baseline design uses Illinois No. 6 Eastern Coal and conventional refining. There is an alternative refining case using ZSM-5 treatment of the vapor stream from the slurry F-T reactor and an alternative coal case using Western coal from the Powder River Basin.
- o Prepare the capital and operating costs for the baseline design and the alternatives. Individual plant costs for the alternative cases will be prorated on capacity, wherever possible, from the baseline case.
- o Develop a process flowsheet simulation (PFS) model.

The baseline design, the economic analysis and computer model will be major research planning tools that PETC will use to plan, guide and evaluate its ongoing and future research and commercialization programs relating to indirect coal liquefaction for the manufacture of synthetic liquid fuels from coal.

The study has been divided into seven major tasks:

- o Task 1: Establish the baseline design and alternatives.
- o Task 2: Evaluate baseline and alternative economics.
- o Task 3: Develop engineering design criteria.
- o Task 4: Develop a process flowsheet simulation (PFS) model.
- o Task 5: Perform sensitivity studies using the PFS model.
- o Task 6: Document the PFS model and develop a DOE training session on its use.

- o Task 7: Perform project management, technical coordination and other miscellaneous support functions.

1.2 SUMMARY

During the reporting period, work progressed on Tasks 1, 4, 5, 6 and 7. This report covers work done during the period and consists of six sections:

- o Introduction and Summary.
- o Task 1 - Baseline Design and Alternatives.
- o Task 4 - Process Flowsheet Simulation (PFS) Model.
- o Task 5 - Perform sensitivity studies using the PFS model.
- o Task 6 - Document the PFS model and develop a DOE training session on its use.
- o Project Management and Staffing Report.

Completed work on Task 1, during the period of this report, consisted of incorporating the Kerr McGee's Critical Solvent Extraction (ROSE) process for F-T catalyst/wax separation into the Baseline design and the alternative cases. The ROSE unit replaces the original catalyst/wax separation design using Mott filters. The decision of incorporating the ROSE unit was made by DOE/PETC as a result of the February 2, 1994 technical progress review meeting. Kerr McGee's pilot plant data was used as the basis for design.

A 35,000 BPSD ROSE unit is required for the Baseline design. Major impacts resulted from this change include approximately \$52 MM increased in total capital investment and 8.6 MW additional power purchased.

Under Tasks 4 and 6, two individual plant models were revised for the Baseline design and the alternative cases. Revisions were made primarily to reflect the incorporation of the ROSE unit. The three complete process simulation models were tuned to the latest utility balances and cost estimates, and the models were tested to verify that they were operable over the required ranges. A Topical Report, documenting the ASPEN process simulation models was drafted.

Under Task 5, a parametric sensitivity study, using the ASPEN model developed for the Baseline design, was carried out. Key process variables investigated included coal feed rate, syngas conversion, wax yield, inlet superficial gas velocity, catalyst slurry concentration and catalyst activity. This was as specified in the contract.

The results of the sensitivity study clearly established the responsiveness of the ASPEN model and demonstrated its usefulness as a tool with which DOE can use to

plan and guide their future research. This study will be the subject of a paper to be presented at the August 1994 National ACS meeting.

Under Task 7, cost and schedule control was the primary activity.

Section 2

Task 1 - Baseline Design and Alternatives

Work progressed during this quarter consisted mainly of incorporating the Kerr McGee's Critical Solvent Extraction (ROSE) unit into the Baseline and the alternative cases for F-T catalyst/wax separation.

2.1 INCORPORATION OF KERR MCGEE'S ROSE UNIT

Kerr McGee's pilot plant data was used as the basis for our design. The ROSE unit replaces the original catalyst/wax separation design using Mott filters. One problem with the ROSE system is that the critical solvents tested make a separation between light and heavy wax and the heavy wax separated out with the catalyst. Disposal of the heavy wax stream is a problem. One possible solution would be to send this stream back to the gasifier, but this places limits on the hydroclones, in terms of catalyst recovery, which Dorr Oliver was not willing to guarantee even with three stages of hydroclones. The second scheme sends the recovered catalyst and wax back to the F-T reactors. The problem with this scheme is to prevent buildup of heavy wax in the F-T reactors.

DOE chose the second scheme for implementing the ROSE unit into the Baseline and the alternative designs. It is recognized that further investigation is needed with the ROSE unit to address the wax buildup problem. What is needed is to find a non-selective solvent. The current design was put in place based on the premise that the ROSE unit represents a better design basis than using the Mott filters, since actual pilot plant data are being used. While this may not be the final solution, it is more expensive than the original design and thus more conservative. F-T catalyst/wax separation is undoubtedly a solvable problem. SASOL has found a solution in their semi-commercial operation and Exxon has indicated likewise.

A 35,000 BPSD ROSE unit is required for the Baseline design. Major impacts resulted from incorporating the ROSE unit include approximately \$52 MM increased in total capital investment and 8.6 MW additional power purchased. In implementing this design changes, detailed material balance was carried out to size the ROSE unit; cost and utility requirements were obtained from Kerr McGee and adjusted for total installed cost at Illinois site. Process design PFDs modified, equipment list updated, cost estimate revised and, utility and steam condensate rebalanced.

2.2 FINAL DESIGNS - CAPITAL COST/UTILITY REQUIREMENTS

Overall plant summary and capital cost for the Baseline design and the alternative cases are given in Tables 2-1 to 2-4. These latest data reflect the inclusion of the ROSE unit, and are presented in such a manner to facilitate easy comparison between the Baseline and the alternative designs. Utility summaries for the three different plant designs are given in Tables 2-5 to 2-7. The latest steam and condensate distributions are shown in Figures 2-1 to 2-3.

Table 2-1

Overall Plant Summary
Baseline vs Alternate Refining (ZSM-5) Case

	<u>Alternate Refining Case</u>		<u>Baseline Design</u>	
<u>Feed</u>				
Jigged Coal	20,300 Tons/day*		20,300 Tons/day*	
Electric Power	1,195 MW-hr/day		1,305 MW-h/day	
Butane	(886)**BPSD		3,121 BPSD	
Raw Water	14.5 MM Gal/day		14.5 MM Gal/day	
<u>Primary Products</u>				
	<u>MLbs/hr</u>	<u>BPSD</u>	<u>MLbs/hr</u>	<u>BPSD</u>
Naphtha (49%)	315.0	30,317(64%)	251.9	23,952
Distillate (51%)	191.1	16,820 (36%)	278.5	24,681
LPG	18.6	2,509	14.2	1,923
Sulfur	46.7		46.7	
* As received Illinois No. 6 coal ~8.6% moisture				
** Butane production				

Table 2-2

Overall Plant Summary
Baseline vs Western Coal Case

	<u>Western Coal Case</u>		<u>Baseline Design</u>	
<u>Feed</u>				
Jigged Coal	28,678 Tons/day*		20,300 Tons/day**	
Electric Power	2,112 MW-hr/day		1,305 MW-h/day	
Butane	3,115 BPSD		3,121 BPSD	
Raw Water	9.8 MM Gal/day		14.5 MM Gal/day	
<u>Primary Products</u>				
	<u>MLbs/hr</u>	<u>BPSD</u>	<u>MLbs/hr</u>	<u>BPSD</u>
Naphtha	249.8	23,758(49%)	251.9	23,952 (49%)
Distillate	276.0	24,458 (51%)	278.5	24,681 (51%)
LPG	14.1	1,916	14.2	1,923
Sulfur	9.0		46.7	

* As received Western Coal ~ 31% moisture

** As received Illinois No. 6 coal ~8.6% moisture

Table 2-3

Baseline vs Alternate Refining (ZSM-5) Case
Capital Cost (in MM Mid-1993 Dollars)

<u>Area</u>	<u>Description</u>	<u>Alternate Refining</u>		<u>Baseline Design</u>	
		<u>Cost*</u>	<u>%</u>	<u>Cost*</u>	<u>%</u>
100	Syngas Production	1986.9	68.5	1978.0	66.7
200	F-T Synthesis	773.0	26.6	755.3	25.5
300	Upgrading/Refining	141.2	4.9	230.3	7.8
Total:		2901.1		2963.6	

* Total installed - included OSBL, Home Office & Fee and 15 % Contingency

Table 2-4

Baseline vs Western Coal Case
Capital Cost (in MM Mid-1993 Dollars)

<u>Area</u>	<u>Description</u>	<u>Western Coal Case</u>		<u>Baseline Design</u>	
		<u>Cost*</u>	<u>%</u>	<u>Cost*</u>	<u>%</u>
100	Syngas Production	2221.0	70.5	1978.0	66.7
200	F-T Synthesis	710.0	22.5	755.3	25.5
300	Upgrading/Refining	217.9	7.0	230.3	7.8
Total:		3148.9		2963.6	

* Total installed - included OSBL, Home Office & Fee and 15 % Contingency

Table 2-5
Plant Utility Summary
Baseline Design

Plant No.	Plant Description	Load B-P	Power KW	900 Psig/1000 °F		Steam, M lb/hr		600 Psig/Set'd	
				Produced	Consumed	Produced	Consumed	Produced	Consumed
	Area 100								
101	Coal Receiving/Storage	2055	1703						
102	Coal Drying/Grinding	28840	23905						
103	Shell Gasification	53076	44000	2268		261			
104	COS Hydro./T Gas Cool	2656	2201						
105	Sour Water Stripping	54	45						
106	Acid Gas Removal	2546	2108						
107	Sulfur Recovery/TGT	1796	1489					127	36
108	Sulfur Polishing	0	0						
109	Syngas Wet Scrubbing	120	99						
110	Air Separation	480	400		2195				
	Subtotal:	91623	75950	2268	2195	261	0	127	36
	Area 200								
201	F-T Synthesis	8423	6958				33		
202	CO2 Removal	9558	7922						
203	Dehydration/Compress	0	0				9		
204	Hydrocarbon Recovery	1230	1020				70		
205	Hydrogen Recovery	16	12						
206	Autothermal Reforming	0	0						125
	Subtotal:	19227	15912	0	0	0	112	0	125
	Area 300								
301	Wax Hydrocracking	2456	1984				66		
302	Distillate Hydrotreating	1358	1067						
303	Naphtha Hydrotreating	942	740						
304	Catalytic Reforming	3735	2933			22			
305	C4 Isomerization	866	680				7		
306	C5/C6 Isomerization	117	92				6		
307	C3/C4/C5 Alkylation	8399	6596				17		
308	Saturated Gas Plant	118	93				9		
	Subtotal:	17991	14185	0	0	22	105	0	0
	Offsites								
19	Relief and Blowdown	23	19		73		66	34	
20	Tankage	87	72						
21	Intercon. Piping System	0	0						
22	Product Shipping	1617	1270						
23	Tank Car/Truck Loading	39	32						
24	Coal Refuse/Ash Disposal	60	50						
25	Cat./Chem. Handling	60	50						
31	Steam and Power Gener.	-84812	-66600						
32	Raw/Cooling/Pot. Water	891	700						
33	Fire Protection System	53	44						
34	Sewage/Effl. Treatment	6234	4895						
35	Instrument/Plant Air	3685	2894						
36	Purge/Plush Oil System	0	0						
37	Solid Waste Management	59	43						
40	General Site	0	0						
41	Buildings	3428	2692						
42	Telecommunications	16	13						
Other	Miscellaneous	2710	2128						
	Subtotal:	-65850	-51892	0	73	0	66	34	0
TOTAL		62991	54355	2268	2268	263	283	161	161

(-) Indicates Production

Table 2-5 (cont.)
Plant Utility Summary
Baseline Design

Plant No.	Plant Description	Steam, M lb/hr				Steam, M lb/hr			
		360 Psig/600 ° F		360 Psig/Sat'd		150 Psig/Sat'd		50 Psig/Sat'd	
		Produced	Consumed	Produced	Consumed	Produced	Consumed	Produced	Consumed
	Area 100								
101	Coal Receiving/Storage								
102	Coal Drying/Grinding								
103	Shell Gasification								
104	COS Hydro/LT Gas Cool								49
105	Sour Water Stripping								9
106	Acid Gas Removal								318
107	Sulfur Recovery/TGT							116	277
108	Sulfur Polishing								
109	Syngas Wet Scrubbing								
110	Air Separation						16	819	
	Subtotal:	0	0	0	0	0	16	935	653
	Area 200								
201	F-T Synthesis			3273				8	
202	CO2 Removal		442					442	3174
203	Dehydration/Compress		256					258	
204	Hydrocarbon Recovery		361		51			385	31
205	Hydrogen Recovery		49					49	
206	Autothermal Reforming							1	
	Subtotal:	0	1108	3273	51	0	0	1143	3205
	Area 300								
301	Wax Hydrocracking		204					219	29
302	Distillate Hydrotreating							3	
303	Naphtha Hydrotreating								
304	Catalytic Reforming								
305	C4 Isomerization						1	2	73
306	C5/C6 Isomerization							1	
307	C3/C4/C5 Alkylation							4	48
308	Saturated Gas Plant							2	
	Subtotal:	0	204	0	0	0	1	231	150
	Offsites								
19	Relief and Blowdown			105	17	17			
20	Tankage								
21	Intercon. Piping System								
22	Product Shipping								
23	Tank Car/Truck Loading								
24	Coal Refuse/Ash Disposal								
25	Cat./Chem. Handling								
31	Steam and Power Gener.	3310	1691		3310			1485	
32	Raw/Cooling/Pot. Water		307					307	
33	Fire Protection System								
34	Sewage/Effl. Treatment								
35	Instrument/Plant Air								
36	Purge/Plush Oil System								
37	Solid Waste Management								
40	General Site								
41	Buildings								
42	Telecommunications								
Other	Miscellaneous								93
	Subtotal:	3310	1998	105	3327	17	0	1782	93
TOTAL		3310	3310	3378	3378	17	17	4101	4101

(-) Indicates Production

Table 2-5 (cont')
Plant Utility Summary
Baseline Design

Plant No.	Plant Description	Condensate Mlb/hr	BFW Mlb/hr	Water Process Mlb/hr	C.W. Circ. GPM	Cooling MMBtu/hr		Fuel, MMBtu/hr Total Fired
						Air	Water	
	Area 100							
101	Coal Receiving/Storage							
102	Coal Drying/Grinding							210.00
103	Shell Gasification		2555		87200		1221	
104	COS Hydro./LT Gas Cool	-49			5888	327	82	
105	Sour Water Stripping	-9			271	6	4	
106	Acid Gas Removal	-318			18132		254	
107	Sulfur Recovery/TGT	-305	242		2125		30	131.00
108	Sulfur Polishing							68.80
109	Syngas Wet Scrubbing				206	8	3	
110	Air Separation	-1392			59659		835	
	Subtotal:	-2073	2797	0	173481	341	2429	409.80
	Area 200							
201	F-T Synthesis	-25	3381	119	2092	285	29	150.00
202	CO2 Removal	-3174			35714	2446	500	
203	Dehydration/Compress	-7			1987		28	
204	Hydrocarbon Recovery	-97		11	3862	149	54	39.00
205	Hydrogen Recovery				381		5	
206	Autothermal Reforming	-2						
	Subtotal:	-3305	3381	130	44036	2880	616	189.00
	Area 300							
301	Wax Hydrocracking	-51			219	367	3	88.80
302	Distillate Hydrotreating				187	23	3	11.74
303	Naphtha Hydrotreating				2856		40	57.18
304	Catalytic Reforming		25		747		10	108.50
305	C4 Isomerization	-79			68	77	1	1.59
306	C5/C6 Isomerization	-5			51		1	3.29
307	C3/C4/C5 Alkylation	-61		18	1216	104	17	
308	Saturated Gas Plant	-7			1204	4	17	10.67
	Subtotal:	-203	25	18	6548	575	92	281.77
	Offsites							
19	Relief and Blowdown							
20	Tankage							
21	Intercon. Piping System							
22	Product Shipping							
23	Tank Car/Truck Loading							
24	Coal Refuse/Ash Disposal							
25	Cat./Chem. Handling							
31	Steam and Power Gener.	-223			14700		206	244.93
32	Raw/Cooling/Pot. Water							
33	Fire Protection System							
34	Sewage/Effl. Treatment							
35	Instrument/Plant Air							
36	Purge/Plush Oil System							
37	Solid Waste Management							
40	General Site							
41	Buildings							
42	Telecommunications							
Other	Miscellaneous	-93						
	Subtotal:	-316	0	0	14700	0	206	245
TOTAL		(6897)*	8203*	148*	238765*	3796	3343	1125.50

(-) indicates Production

* Recirculation. See Plant 32 Water Balance For Details

Table 2-6
Plant Utility Summary
Alternate (ZSM-5) Refining Design

Plant No.	Plant Description	Load B-P	Power kW	Steam, M B/hr					
				900 Psig/1000 °F		600 Psig/650 °F		600 Psig/Sat'd	
				Produced	Consumed	Produced	Consumed	Produced	Consumed
	Area 100								
101	Coal Receiving/Storage	2055	1703						
102	Coal Drying/Grinding	28840	23905						
103	Shell Gasification	53076	44000	2268		261			
104	COS Hydro/LT Gas Cool	2656	2201						
105	Sour Water Stripping	54	45						
106	Acid Gas Removal	2546	2108						
107	Sulfur Recovery/TGT	1796	1489					127	36
108	Sulfur Polishing	0	0						
109	Syngas Wet Scrubbing	120	99						
110	Air Separation	480	400		2195				
	Subtotal:	81623	75950	2268	2195	261	0	127	36
	Area 200								
201	F-T Synthesis	11853	9801				33		
202	CO2 Removal	9558	7922						
203	Dehydration/Compress	0	0				9		
204	Hydrocarbon Recovery	1230	1020				70		
205	Hydrogen Recovery	11	8						
206	Autothermal Reforming	0	0						125
	Subtotal:	22652	18751	0	0	0	112	0	125
	Area 300								
301	Wax Hydrocracking	2505	2024				67		
302	Distillate Hydrotreating								
303	Naphtha Hydrotreating								
304	Catalytic Reforming								
305	C4 Isomerization	231	182				2		
306	C5/C6 Isomerization								
307	C3/C4/C5 Alkylation	9743	7651				20		
308	Saturated Gas Plant	112	88				9		
	Subtotal:	12591	9945	0	0	0	98	0	0
	Offsites								
19	Relief and Blowdown	23	19		73		51	34	
20	Tankage	87	72						
21	Intercon. Piping System	0	0						
22	Product Shipping	1617	1270						
23	Tank Car/Truck Loading	39	32						
24	Coal Refuse/Ash Disposal	60	50						
25	Cat./Chem. Handling	60	50						
31	Steam and Power Gener.	-88760	-69700						
32	Raw/Cooling/Pct. Water	891	700						
33	Fire Protection System	53	44						
34	Sewage/Effl. Treatment	6234	4895						
35	Instrument/Plant Air	3685	2894						
36	Purge/Flush Oil System	0	0						
37	Solid Waste Management	59	49						
40	General Site	0	0						
41	Buildings	3428	2692						
42	Telecommunications	16	13						
Other	Miscellaneous	2710	2128						
	Subtotal:	-69797	-54792	0	73	0	51	34	0
TOTAL		67069	49854	2268	2268	261	261	161	161

(-) Indicates Production

Table 2-6 (cont')
Plant Utility Summary
Alternate (ZSM-5) Refining Design

Plant No.	Plant Description	Steam, M lb/hr				Steam, M lb/hr			
		360 Psig/600 ° F		360 Psig/Sat'd		150 Psig/Sat'd		50 Psig/Sat'd	
		Produced	Consumed	Produced	Consumed	Produced	Consumed	Produced	Consumed
	Area 100								
101	Coal Receiving/Storage								
102	Coal Drying/Grinding								
103	Shell Gasification								
104	COS Hydro/LT Gas Cool								49
105	Sour Water Stripping								9
106	Acid Gas Removal								318
107	Sulfur Recovery/TGT							116	277
108	Sulfur Polishing								
109	Syn gas Wet Scrubbing								
110	Air Separation						16	818	
	Subtotal:	0	0	0	0	0	16	934	653
	Area 200								
201	F-T Synthesis			3273		24		8	
202	CO2 Removal		442					442	3174
203	Dehydration/Compress		256					256	
204	Hydrocarbon Recovery		361		51			384	31
205	Hydrogen Recovery		32					32	
206	Autothermal Reforming							1	
	Subtotal:	0	1091	3273	51	24	0	1125	3205
	Area 300								
301	Wax Hydrocracking		208					223	29
302	Distillate Hydrotreating								
303	Naphtha Hydrotreating								
304	Catalytic Reforming								
305	C4 Isomerization						0	2	20
306	C5/C6 Isomerization								
307	C3/C4/C5 Alkylation							5	56
308	Saturated Gas Plant							2	
	Subtotal:	0	208	0	0	0	0	232	105
	Offsites								
19	Relief and Blowdown			90			8	8	
20	Tankage								
21	Intercon. Piping System								
22	Product Shipping								
23	Tank Car/Truck Loading								
24	Coal Refuse/Ash Disposal								
25	Cat./Chem. Handling								
31	Steam and Power Gener.	3312	1706		3312			1450	
32	Raw Cooling/Pot. Water		307					307	
33	Fire Protection System								
34	Sewage/Eff. Treatment								
35	Instrument/Plant Air								
36	Purge/Pursh Oil System								
37	Solid Waste Management								
40	General Site								
41	Buildings								
42	Telecommunications								
Other	Miscellaneous								93
	Subtotal:	3312	2013	90	3312	0	8	1765	93
TOTAL		3312	3312	3363	3363	24	24	4056	4056

(-) Indicates Production

Table 2-6 (cont')
Plant Utility Summary
Alternate (ZSM-5) Refining Design

Plant No.	Plant Description	Condensate Mlb/hr	BFW Mlb/hr	Water Process Mlb/hr	C.W. Circ. GPM	Cooling,MMBtu/hr		Fuel, MMBtu/hr Total Fired
						Air	Water	
	Area 100							
101	Coal Receiving/Storage							
102	Coal Drying/Grinding							210.00
103	Shell Gasification		2555		87200		1221	
104	COS Hydro./LT Gas Cool	-49			5888	327	82	
105	Sour Water Stripping	-9			271	6	4	
106	Acid Gas Removal	-318			18132		254	
107	Sulfur Recovery/TGT	-305	242		2125		30	131.00
108	Sulfur Polishing							69.80
109	Syngas Wet Scrubbing				206	8	3	
110	Air Separation	-1392			59659		835	
	Subtotal:	-2073	2797	0	173481	341	2429	409.80
	Area 200							
201	F-T Synthesis	-25	3405	119	2092	285	29	150.05
202	CO2 Removal	-3174			35714	2446	500	
203	Dehydration/Compress	-7			1987		28	
204	Hydrocarbon Recovery	-97		11	3862	149	107	39.00
205	Hydrogen Recovery				251		3	
206	Autothermal Reforming	-2						
	Subtotal:	-3305	3405	130	45906	2980	667	199.05
	Area 300							
301	Wax Hydrocracking	-52			223	375	3	81.00
302	Distillate Hydrotreating							
303	Naphtha Hydrotreating							
304	Catalytic Reforming							
305	C4 Isomerization	-20			18	20	0	0.00
306	C5/C6 Isomerization							
307	C3/C4/C5 Alkylation	-80		21	1410	121	20	
308	Saturated Gas Plant	-5			1146	4	16	10.00
	Subtotal:	-157	0	21	2797	520	39	181.00
	Utilities							
19	Relief and Blowdown							
20	Tankage							
21	Intercon. Piping System							
22	Product Shipping							
23	Tank Car/Truck Loading							
24	Coal Refuse/Ash Disposal							
25	Cat./Chem. Handling							
31	Steam and Power Gener.	-273			14700		206	352.00
32	Raw/Cooling/Pot. Water							
33	Fire Protection System							
34	Sewage/Effl. Treatment							
35	Instrument/Plant Air							
36	Purge/Flush Oil System							
37	Solid Waste Management							
40	General Site							
41	Buildings							
42	Telecommunications							
Other	Miscellaneous	-93						
	Subtotal:	-366	0	0	14700	0	206	352
TOTAL		-5901	6202	181	234884	3741	3341	1861.85

(-) Indicates Production

4/27/94

Table 2-7
Plant Utility Summary
Western Coal Design

Plant No.	Plant Description	Load B-P	Power KW	Steam, M lb/hr					
				900 Psig/1000 °F		600 Psig/650 °F		600 Psig/Sat'd	
				Produced	Consumed	Produced	Consumed	Produced	Consumed
	Area 100								
W101	Coal Receiving/Storage	2900	2403						
W102	Coal Drying/Grinding	40696	33732						
W103	Shell Gasification	66160	55134	2429		500			
W105	Sour Water Stripping	146	121						
W106	Acid Gas Removal	9050	7542						
W107	Sulfur Recovery/TGT	347	288					25	7
W108	Sulfur Polishing	0	0						
W109	Syngas Wet Scrubbing	792	660						
W110	Air Separation	453	381		2425				
	Subtotal:	120549	100281	2429	2425	500	0	25	7
	Area 200								
W201	F-T Synthesis	8423	6961				33		
W202	CO2 Removal	9595	7930						
W203	Dehydration/Compress	0	0				9		
W204	Hydrocarbon Recovery	1198	990				68		
W205	Hydrogen Recovery	16	12						
W206	Autothermal Reforming	0	0						122
	Subtotal:	19232	15893	0	0	0	110	0	122
	Area 300								
W301	Wax Hydrocracking	2479	1999				67		
W302	Distillate Hydrotreating	1365	1075						
W303	Naphtha Hydrotreating	947	746						
W304	Catalytic Reforming	3754	2956			22			
W305	C4 Isomerization	872	687				7		
W306	C5/C6 Isomerization	118	93				6		
W307	C3/C4/C5 Alkylation	8463	6664				17		
W308	Saturated Gas Plant	119	94				9		
	Subtotal:	16119	14314	0	0	22	106	0	0
	Offsites								
W19	Relief and Blowdown	23	19		4		306	104	
W20	Tankage	87	72						
W21	Intercon. Piping System	0	0						
W22	Product Shipping	1617	1270						
W23	Tank Car/Truck Loading	39	32						
W24	Coal Refuse/Ash Disposal	60	50						
W25	Cal./Chem. Handling	60	50						
W31	Steam and Power Gener.	-82138	-64500						
W32	Raw/Cooling/Pot. Water	10519	8260						
W33	Fire Protection System	53	44						
W34	Sewage/Effl. Treatment	6234	4895						
W35	Instrument/Plant Air	3685	2894						
W36	Purge/Plush Oil System	0	0						
W37	Solid Waste Management	59	49						
W40	General Site	0	0						
W41	Buildings	3428	2692						
W42	Telecommunications	16	13						
Other	Miscellaneous	2710	2128						
	Subtotal:	-53548	-42032	0	4	0	306	104	0
TOTAL		104362	88436	2429	2429	522	522	129	-129

(-) Indicates Production

Table 2-7 (cont')
Plant Utility Summary
Western Coal Design

Plant No.	Plant Description	Steam, M lb/hr				Steam, M lb/hr			
		360 Psig/600 ° F		360 Psig/Sat'd		150 Psig/Sat'd		50 Psig/Sat'd	
		Produced	Consumed	Produced	Consumed	Produced	Consumed	Produced	Consumed
	Area 100								
W101	Coal Receiving/Storage								
W102	Coal Drying/Grinding				365			58	
W103	Shell Gasification								
W105	Sour Water Stripping								23
W106	Acid Gas Removal						24	2	104
W107	Sulfur Recovery/TGT							23	54
W108	Sulfur Polishing								
W109	Syngas Wet Scrubbing								
W110	Air Separation						15	819	
	Subtotal:	0	0	0	365	0	39	802	181
	Area 200								
W201	F-T Synthesis			3273				8	
W202	CO2 Removal		443					443	3180
W203	Dehydration/Compress		247					249	
W204	Hydrocarbon Recovery		348		49			371	30
W205	Hydrogen Recovery		49					49	
W206	Autothermal Reforming							1	
	Subtotal:	0	1087	3273	49	0	0	1121	3210
	Area 300								
W301	Wax Hydrocracking		269					224	30
W302	Distillate Hydrotreating							3	
W303	Naphtha Hydrotreating								
W304	Catalytic Reforming								
W305	C4 Isomerization						1	2	72
W306	C5/C6 Isomerization							1	
W307	C3/C4/C5 Alkylation							4	50
W308	Saturated Gas Plant							2	
	Subtotal:	0	269	0	0	0	1	235	152
	Offsites								
W19	Relief and Blowdown			206	40	40			
W20	Tankage								
W21	Intercon. Piping System								
W22	Product Shipping								
W23	Tank Car/Truck Loading								
W24	Coal Refuse/Ash Disposal								
W25	Cat./Chem. Handling								
W31	Steam and Power Gener.	3025	1422		3025			1070	
W32	Raw/Cooling/Pot. Water		307					307	
W33	Fire Protection System								
W34	Sewage/Eff. Treatment								
W35	Instrument/Plant Air								
W36	Purge/Push Oil System								
W37	Solid Waste Management								
W40	General Site								
W41	Buildings								
W42	Telecommunications								
Other	Miscellaneous								83
	Subtotal:	3025	1729	206	3065	40	0	1377	83
TOTAL		3025	3025	3479	3479	40	40	3636	3636

(-) Indicates Production

Table 2-7 (cont')
Plant Utility Summary
Western Coal Design

Plant No.	Plant Description	Condensate Mlb/hr	BFW Mlb/hr	Water Process Mlb/hr	C.W. Circ. GPM	Cooling, MMBtu/hr		Fuel, MMBtu/hr Total Fired
						Air	Water	
	Area 100							
W101	Coal Receiving/Storage							
W102	Coal Drying/Grinding	-307						600
W103	Shell Gasification		2958		88587		1240	
W105	Sour Water Stripping	-23			732	15	10	
W106	Acid Gas Removal	-126			5612		79	
W107	Sulfur Recovery/TGT	-59	48		411		6	25
W108	Sulfur Polishing							70
W109	Syngas Wet Scrubbing				5460	188	77	
W110	Air Separation	-1621			56890		796	
	Subtotal:	-2136	3006	0	157892	203	2208	695
	Area 200							
W201	F-T Synthesis	-25	3381	119	2092	285	29	150
W202	CO2 Removal	-3180			35250	2414	494	
W203	Dehydration/Compress	-7			1915		27	
W204	Hydrocarbon Recovery	-94		10	3723	144	52	38
W205	Hydrogen Recovery				381		5	
W206	Autothermal Reforming	-2						
	Subtotal:	-3308	3381	130	43361	2843	607	188
	Area 300							
W301	Wax Hydrocracking	-52			224	375	3	91
W302	Distillate Hydrotreating				191	24	3	12
W303	Naphtha Hydrotreating				2867		40	57
W304	Catalytic Reforming		25		761		10	110
W305	C4 Isomerization	-78			69	78	1	2
W306	C6/C8 Isomerization	-5			52		1	3
W307	C3/C4/C5 Alkylation	-63		18	1228	105	17	
W308	Saturated Gas Plant	-7			1204	4	17	11
	Subtotal:	-205	25	18	6596	586	92	265
	Offsites							
W19	Refuel and Blowdown							
W20	Tankage							
W21	Intercon. Piping System							
W22	Product Shipping							
W23	Tank Car/Truck Loading							
W24	Coal Refuse/Ash Disposal							
W25	Cat./Chem. Handling							
W31	Steam and Power Gener.	-369			11907		167	312
W32	Raw/Cooling/Pot. Water							
W33	Fire Protection System							
W34	Sewage/Effl. Treatment							0
W35	Instrument/Plant Air							
W36	Purge/Plush Oil System							
W37	Solid Waste Management							
W40	General Site							
W41	Buildings							
W42	Telecommunications							
Other	Miscellaneous	-93						
	Subtotal:	-462	0	0	11907	0	167	312
TOTAL		-6111	6412	148	219555	3632	3674	1480

(-) indicates Production

4/27/94

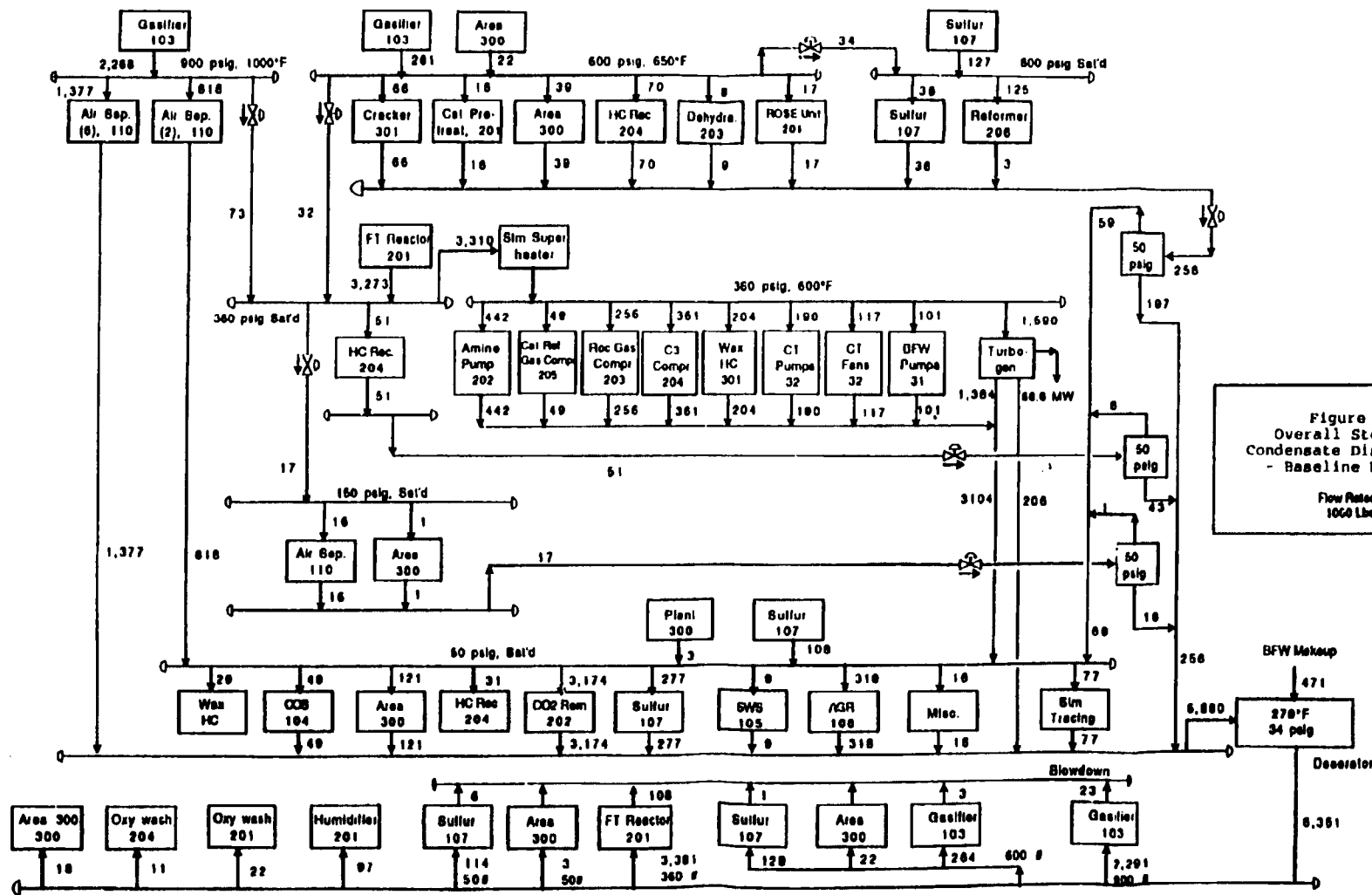


Figure 2-1
Overall Steam and
Condensate Distribution
- Baseline Design -
Flow Rates Are
1000 Lb/hr

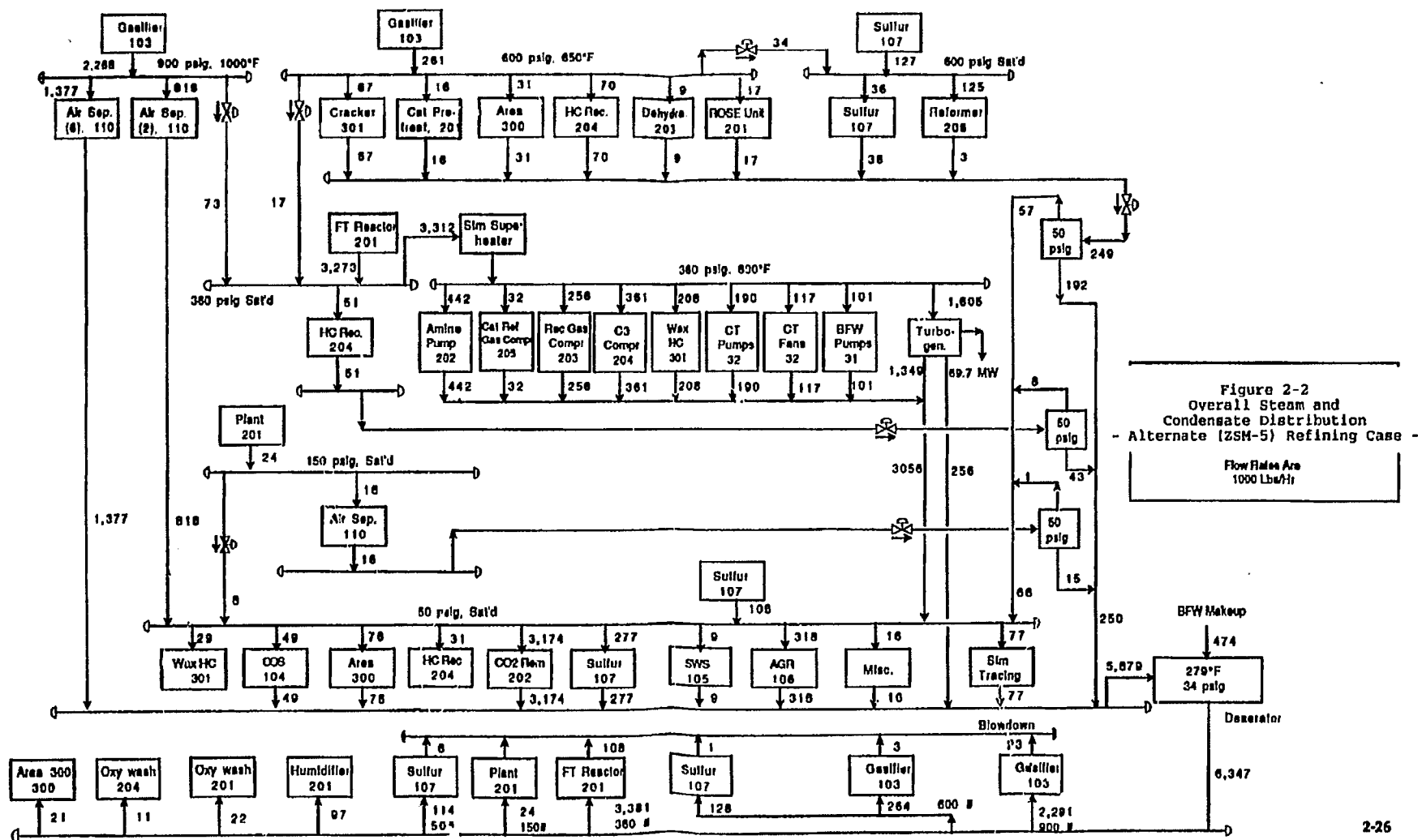


Figure 2-2
Overall Steam and
Condensate Distribution
- Alternate (ZSM-5) Refining Case -
Flow Rates Are
1000 Lbs/Hr

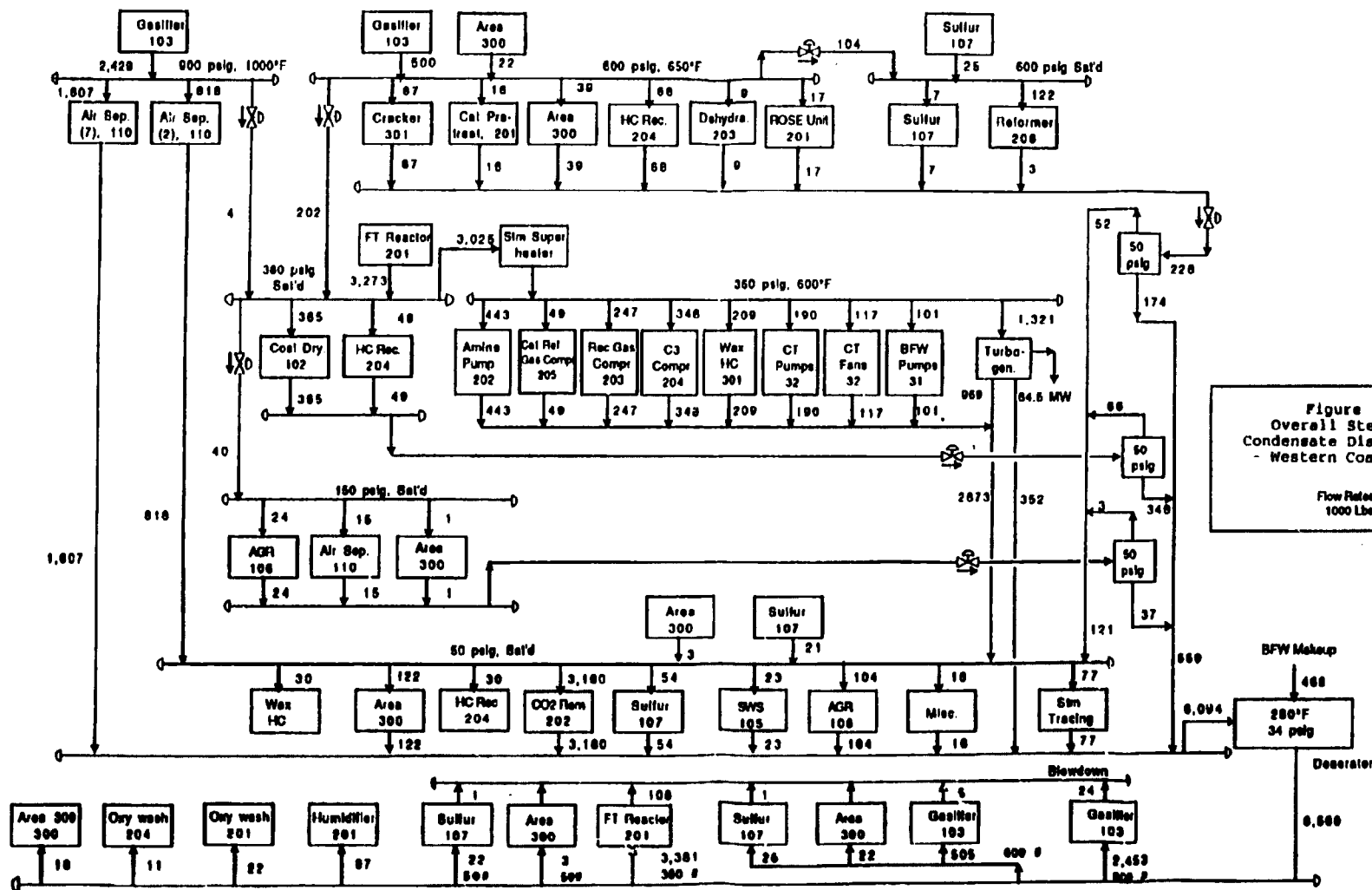


Figure 2-3
Overall Steam and
Condensate Distribution
- Western Coal Case -

Flow Rates Are
1000 Lbs/Hr

Section 3

Task 4 - ASPEN Simulation Model Development

Previous quarterly progress reports described the development of ASPEN process simulation models for each of the individual plants in the indirect coal liquefaction complex and their integration into three complete process simulation models for

1. The baseline design case which processes Illinois No. 6 coal at a plant located in southern Illinois
2. An alternate refining case in which the vapor products from the slurry bed Fischer-Tropsch reactors are upgraded in a close-coupled reactor containing ZSM-5 catalyst
3. A Western coal case processing Powder River Basin coal in a plant located in Wyoming.

During this quarter, two individual plant models were revised. The three complete ASPEN process simulation models were tuned to the latest utility balances and cost estimates, and the models were tested to verify that they are operable over the design ranges. In addition, the LOTUS spreadsheet economic model was enhanced to provide another option for evaluating the purchased n-butane and hydrocarbon product values.

All three ASPEN process simulation models now are complete, and results match the final process designs. Draft documentation of the Topical Report for Task IV, documenting the process simulation model development has been completed and forwarded to DOE/PETC for review and approval.

3.1 ENHANCEMENTS TO INDIVIDUAL PROCESS SIMULATION MODELS

3.1.1 The Plant 201 Fischer-Tropsch Synthesis Plant Model

The Fortran user block model for Plant 201, the Fischer-Tropsch synthesis plant, is the most sophisticated of all the Fortran user block models. This block model consists of thirteen Fortran subroutines. It models the slurry bed Fischer-Tropsch reactions, predicts the yields, sizes the slurry bed reactors, predicts the utilities consumptions and/or productions for the entire Fischer-Tropsch plant, and calculates the ISBL plant cost.

During this quarter, two revisions were made to this model. The first involved replacing the wax filters with a ROSE unit, and the second was the addition of a more detailed plant costing procedure.

A 35,000 BPSD Kerr-McGee ROSE unit was added to the Fortran user block model to replace the Mott filters that originally were used to separate the Fischer-Tropsch catalyst from the wax product. Since the ROSE unit consumes more steam and fuel

than the wax filters that it replaced, revisions were needed in other areas of the models to account for these changes.

The costing procedure for Plant 201, the Fischer-Tropsch synthesis plant, was revised to use a more detailed method than the general cost scaling procedure. The previously used general cost scaling procedure, which still is used for all the other plants, is based only on plant capacity. The new costing procedure is a combination method which uses the number, size and weight of the Fischer-Tropsch reactors to calculate the cost of the reaction section, and then uses the general cost scaling equation to calculate the cost of the other equipment within the plant as a function of capacity. This new procedure is responsive to the operations of the Fischer-Tropsch reactors in addition to plant capacity; whereas the original cost scaling procedure was a function of only plant capacity. The original costs scaling procedure still is available as an alternate procedure for those situations when the Fischer-Tropsch reactor sizes are not being calculated.

Figure 3-1 shows the final complete four-page output generated by the Fortran user block model for the Fischer-Tropsch synthesis plant for the Baseline design case. The first page is a summary of the component flows in and out of the F-T reactor. The second page contains a summary of the F-T reactor sizing calculations and the results of the revised plant costing procedure. The final two pages contain a detailed equipment list for the entire plant. In order to protect the proprietary nature of Kerr-McGee's ROSE unit design, it is shown only as a complete block in the special equipment section.

In addition, another input file for the original baseline design case using catalyst/wax filters in Plant 201 was developed that is compatible with the current model since some incompatibilities were added during the revisions for the ROSE unit. At present, there are no plans to have AspenTech convert this model to ASPEN PLUS.

3.1.2. The Plant 31 Steam and Power Generation Plant Model

The model for Plant 31, the steam and power generation plant, was enhanced to predict the cooling water circulation rate and plant cost as a function of power production in the same manner as if this plant were an ISBL plant. This revision was made to facilitate the evaluation of trade-offs between fuel gas purchase, electric power purchase, additional fuel gas production, and power plant capacity.

3.2 OVERALL PROCESS SIMULATION MODELS

The three ASPEN process simulation models for the baseline design case, alternate refining and Western coal cases were retuned to agree with the final utility balances

SUMMARY OF CURRENT AND PREVIOUS WEEK'S TRANSACTIONS
FOR CURRENT MARKETING YEAR BY REPORTING CATEGORY

COMMODITY	WEEK ENDING	NEW SALES 1/ (+)	PURCHASES FROM FOREIGN SELLERS2/ (-)	BUY-BACKS & CANCELLA- TIONS 3/ (-)	OUTSTANDING SALES 4/ (-)	
----- 1000 METRIC TONS -----						
ALL WHEAT	: 08/19	657.2	0.0	42.3	624.6	5789.5
	: 08/26	719.3	0.0	161.8	559.9	5787.1
WHEAT PRODUCTS	: 08/19	0.2	0.0	0.0	0.7	15.5
	: 08/26	2.6	0.0	0.0	3.6	14.5
RYE	: 08/19	0.0	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0	0.0
OATS	: 08/19	0.0	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0	0.0
BARLEY	: 08/19	0.0	0.0	0.0	0.0	10.9
	: 08/26	0.0	0.0	0.0	0.0	10.9
CORN	: 08/19	319.8	120.0	66.2	976.1	3019.1
	: 08/26	180.7	3.2	85.0	934.6	2177.1
GRAIN SORGHUM	: 08/19	38.7	0.0	0.7	135.2	258.8
	: 08/26	39.3	0.0	4.7	80.6	212.8
SOYBEANS	: 08/19	23.9	0.0	6.5	74.8	386.8
	: 08/26	2.9	0.0	3.4	76.5	309.8
SOYBEAN CAKE & MEAL	: 08/19	48.5	0.0	2.7	26.6	229.8
	: 08/26	24.2	0.0	22.2	63.8	167.9
SOYBEAN OIL	: 08/19	1.4	0.0	3.6	2.2	39.4
	: 08/26	1.1	0.0	0.5	3.8	36.2
ALL RICE	: 08/19	58.6	0.0	1.2	21.8	284.2
	: 08/26	75.2	0.0	12.5	44.6	302.2
----- 1000 RUNNING BALES -----						
ALL UPLAND COTTON	: 08/19	121.8	0.0	6.2	161.7	4207.7
	: 08/26	212.7	0.0	6.9	171.7	4241.8
AMERICAN PIMA COTTON	: 08/19	*	0.0	0.0	1.7	63.2
	: 08/26	11.2	0.0	0.1	3.8	70.6
----- 1000 PIECES -----						
CATTLE HIDES - WHOLE	: 08/19	496.0	0.0	34.7	449.7	4190.4
	: 08/26	338.6	0.0	27.9	403.0	4098.0
----- 1000 METRIC TONS -----						
BEEF	: 08/19	2.1	0.0	0.1	3.4	14.8
	: 08/26	5.8	0.0	0.1	3.7	16.9

FOOTNOTES FOR PAGES 2 & 3: DATA SHOWN MAY NOT ADD DUE TO ROUNDING.

1 INCLUDES INCREASES RESULTING FROM NEW SALES, UPWARD CONTRACT ADJUSTMENT, SHIFTS IN DELIVERY PERIOD FROM ONE MARKETING YEAR TO ANOTHER AND CHANGES FROM ONE COMMODITY TO ANOTHER.

2 NET FOREIGN PURCHASE ACTIVITY. A PURCHASE FROM A FOREIGN SELLER IS A TRANSACTION CONTRACTING TO BUY U.S. PRODUCED COMMODITY FROM A FIRM OUTSIDE THE U.S. -- NOT INVOLVING A CANCELLATION OR BUY-BACK OF A REPORTED SALE.

3 INCLUDES DECREASES RESULTING FROM BUY-BACK OF ALL OR PART OF A CONTRACT BALANCE BY MUTUAL CONSENT, UNILATERAL CANCELLATION BY ONE PARTY WHICH COULD RESULT IN A CONTRACT DISPUTE, DOWNWARD CONTRACT ADJUSTMENTS, SHIFTS IN DELIVERY PERIOD FROM ONE MARKETING YEAR TO ANOTHER, AND CHANGES FROM ONE COMMODITY TO ANOTHER.

4 DOES NOT INCLUDE EXPORTS FOR EXPORTER'S OWN ACCOUNT.

SUMMARY AND COMPARISON OF CURRENT AND PREVIOUS WEEK'S TRANSACTIONS
FOR NEXT MARKETING YEAR BY REPORTING CATEGORY

COMMODITY	WEEK ENDING	NEW SALES 1/ (+)	PURCHASES FROM FOREIGN SELLERS2/(-)	BUY-BACKS & CANCELLA- TIONS 3/(-)	OUTSTANDING SALES
----- 1000 METRIC TONS -----					
ALL WHEAT	: 08/19	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0
	:YR AGO	0.0	0.0	0.0	0.0
BARLEY	: 08/19	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0
	:YR AGO	0.0	0.0	0.0	0.0
CORN	: 08/19	224.1	15.0	0.0	4457.0
	: 08/26	500.2	0.0	8.5	4948.6
	:YR AGO	739.2	34.5	19.9	5563.1
GRAIN SORGHUM	: 08/19	46.1	0.0	0.0	538.2
	: 08/26	111.5	0.0	0.0	649.7
	:YR AGO	78.7	0.0	44.0	931.0
SOYBEANS	: 08/19	527.5	0.0	0.0	5164.6
	: 08/26	192.3	0.0	0.2	5356.8
	:YR AGO	257.0	0.0	0.0	7416.1
SOYBEAN CAKE & MEAL	: 08/19	14.7	0.0	0.0	651.3
	: 08/26	70.9	0.0	0.1	722.1
	:YR AGO	28.0	0.0	0.5	905.4
SOYBEAN OIL	: 08/19	3.6	0.0	0.0	44.4
	: 08/26	10.7	0.0	0.0	55.1
	:YR AGO	0.0	0.0	0.0	69.1
ALL RICE	: 08/19	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0
	:YR AGO	0.0	0.0	0.0	0.0
----- 1000 RUNNING BALES -----					
ALL UPLAND COTTON	: 08/19	0.4	0.0	0.1	149.8
	: 08/26	7.5	0.0	0.0	157.3
	:YR AGO	34.7	0.0	0.0	124.0
AMERICAN PIMA COTTON	: 08/19	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0
	:YR AGO	0.0	0.0	0.0	0.0
----- 1000 PIECES -----					
CATTLE HIDES - WHOLE	: 08/19	0.0	0.0	0.0	0.0
	: 08/26	0.0	0.0	0.0	0.0
	:YR AGO	0.0	0.0	0.0	0.0
----- 1000 METRIC TONS -----					
BEEF	: 08/19	0.0	0.0	0.0	*
	: 08/26	0.0	0.0	0.0	*
	:YR AGO	*	0.0	*	6.2

SUMMARY OF EXPORT TRANSACTIONS REPORTED UNDER THE DAILY REPORTING SYSTEM
COMMODITY DESTINATION QUANTITY (MT) MARKETING YEAR

FOR PERIOD ENDING AUGUST 26, 2004

WHEAT	CHINA	140,000 1/	2004/2005
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1/ Change in the class of wheat from soft red winter to hard red spring.

OUTSTANDING EXPORT SALES AND EXPORTS - CURRENT MARKETING YEAR
SUMMARY AND COMPARISON OF SELECTED COMMODITIES 1/

COMMODITY	WEEK END- ING	OUT- STANDING SALES	WEEKLY EXPORTS :	CUMULATIVE EXPORTS FOR MARKETING YEAR	TOTAL COMMIT- MENT 2/	OFFICIAL USDA EXPORT PROJECTIONS
			1000 METRIC TONS	MILLION BUSHELS	1000 METRIC TONS	
HARD RED WINTER WHEAT	08/19	1643.2	204.0	2408.6	88.5	4051.8
	08/26	1812.5	169.8	2578.4	94.7	4390.9
	YR AGO	2375.4	186.8	2835.7	104.2	5211.1
SOFT RED WINTER WHEAT	08/19	1275.1	104.9	951.6	35.0	2226.7
	08/26	1067.0	101.1	1052.7	38.7	2119.7
	YR AGO	565.0	158.4	952.0	35.0	1517.0
HARD RED SPRING WHEAT	08/19	1523.9	174.5	1615.1	59.3	3139.0
	08/26	1574.7	183.0	1798.1	66.1	3372.7
	YR AGO	1323.9	146.5	1492.1	54.8	2816.0
WHITE WHEAT	08/19	1259.4	124.9	855.4	31.4	2114.8
	08/26	1223.5	106.0	961.4	35.3	2184.9
	YR AGO	655.4	84.3	843.5	31.0	1498.9
DURUM WHEAT	08/19	88.0	16.3	148.6	5.5	236.5
	08/26	109.5	0.0	148.6	5.5	258.0
	YR AGO	165.5	38.9	231.9	8.5	397.4
ALL WHEAT	08/19	5789.5	624.6	5979.3	219.7	11768.8
	08/26	5787.1	559.9	6539.2	240.3	12326.3
	YR AGO	5085.2	614.9	6355.1	233.5	11440.4
WHEAT PRODUCTS	08/19	15.5	0.7	19.9	-	35.5
	08/26	14.5	3.6	23.6	-	38.1
	YR AGO	23.1	0.5	7.7	-	30.8
RYE	08/19	0.0	-	-	-	-
	08/26	0.0	-	-	-	-
	YR AGO	0.0	0.0	0.0	0.0	0.0
OATS	08/19	0.0	-	-	-	-
	08/26	0.0	-	-	-	-
	YR AGO	0.1	0.2	1.3	0.1	1.4
BARLEY	08/19	10.9	0.0	40.2	1.8	51.2
	08/26	10.9	0.0	40.2	1.8	51.2
	YR AGO	92.6	16.2	43.8	2.0	136.4
CORN	08/19	3019.1	976.1	46769.6	1841.2	49788.8
	08/26	2177.1	934.6	47704.2	1878.0	49881.3
	YR AGO	1899.6	917.7	39645.7	1560.8	41545.2
GRAIN SORGHUM	08/19	258.8	135.2	4615.6	181.7	4874.4
	08/26	212.8	80.6	4696.2	184.9	4909.0
	YR AGO	286.7	215.7	4740.1	186.6	5026.8
COTTONSEED	08/19	29.6	1.6	6.0	-	35.7
	08/26	30.5	3.0	9.0	-	39.5
	YR AGO	29.6	1.2	3.1	-	32.7
FLAXSEED	08/19	0.0	-	-	-	-
	08/26	0.0	-	-	-	-
	YR AGO	0.0	0.0	0.0	0.0	0.0

OUTSTANDING EXPORT SALES AND EXPORTS - CURRENT MARKETING YEAR
SUMMARY AND COMPARISON OF SELECTED COMMODITIES 1/

COMMODITY	WEEK END- ING	OUT- STANDING SALES	WEEKLY EXPORTS	CUMULATIVE EXPORTS FOR MARKETING YEAR	TOTAL COMMIT- MENT 2/	OFFICIAL USDA EXPORT PROJECTIONS
			1000 METRIC TONS		MILLION BUSHEL	1000 METRIC TONS
SOYBEANS	08/19	386.8	74.8	24031.2	883.0	24418.0
	08/26	309.8	76.5	24107.8	885.8	24417.5
	YR AGO	599.2	168.6	28907.5	1062.2	29506.7
SOYBEAN CAKE & MEAL	08/19	229.8	26.6	3700.0	-	3929.7
	08/26	167.9	63.8	3763.8	-	3931.7
	YR AGO	648.5	80.0	5147.3	-	5795.9
					MIL. LBS.	
SOYBEAN OIL	08/19	39.4	2.2	206.7	455.6	246.1
	08/26	36.2	3.8	210.5	464.0	246.6
	YR AGO	62.8	23.1	666.1	1468.5	729.0
LINSEED OIL	08/19	0.3	0.0	3.9	8.5	4.1
	08/26	0.3	0.0	3.9	8.5	4.1
	YR AGO	3.6	0.1	3.3	7.3	6.9
SUNFLOWERSEED OIL	08/19	3.7	0.2	107.3	236.5	110.9
	08/26	3.3	0.0	107.3	236.5	110.6
	YR AGO	8.5	0.3	50.7	111.8	59.2
					1000 CWT.	
LONG GRAIN, ROUGH	08/19	132.7	3.4	63.0	1389.3	195.7
	08/26	128.0	21.6	84.6	1865.6	212.7
	YR AGO	129.9	36.6	168.8	3721.3	298.7
MED, SHORT, OTH. CLASS., ROUGH	08/19	0.0	-	-	-	-
	08/26	0.0	-	-	-	-
	YR AGO	0.0	0.0	0.0	0.0	0.0
ALL RICE	08/19	284.2	21.8	97.0	2137.5	381.1
	08/26	302.2	44.6	141.6	3121.6	443.8
	YR AGO	401.6	63.5	288.1	6350.9	689.7
					1000 RUNNING BALES	
ALL UPLAND COTTON	08/19	4207.7	161.7	563.3	-	4770.9
	08/26	4241.8	171.7	735.0	-	4976.7
	YR AGO	2391.1	129.3	793.0	-	3184.1
AMERICAN PIMA COTTON	08/19	63.2	1.7	21.1	-	84.3
	08/26	70.6	3.8	24.9	-	95.4
	YR AGO	90.0	6.5	16.8	-	106.8
					1000 PIECES	
CATTLE HIDES - WHOLE	08/19	4190.4	449.7	14668.7	-	18859.1
	08/26	4098.0	403.0	15071.8	-	19169.8
	YR AGO	4183.9	400.0	15831.0	-	20014.9
					1000 METRIC TONS	
BEEF	08/19	14.8	3.4	74.3	163.9	89.1
	08/26	16.9	3.7	78.0	172.0	94.9
	YR AGO	97.3	16.4	530.0	1168.5	627.4

1/ WITH THE EXCEPTION OF EXPORT PROJECTIONS, DATA DO NOT INCLUDE SEED AND RELIEF (PL 480, TITLE II). 2/ EQUALS OUTSTANDING SALES PLUS CUMULATIVE EXPORTS 3/ INCLUDES SMALL QUANTITIES OF PRODUCTS. 4/ EXPORT PROJECTIONS ON "MILLED BASIS" AND CUMULATIVE EXPORT DATA ON "PRODUCT WEIGHT BASIS".

WHEAT - HARD RED WINTER

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
JAPAN	203.1	198.8	260.0	295.6	0.0	0.0
TAIWAN	24.6	41.1	52.5	49.8	0.0	0.0
OTHER ASIA AND OCEANIA:	259.4	125.5	497.5	155.8	0.0	0.0
INDNSIA	0.0	19.0	9.9	0.0	0.0	0.0
IRAQ	0.0	0.0	159.6	0.0	0.0	0.0
ISRAEL	124.7	55.9	172.5	75.1	0.0	0.0
JORDAN	0.0	0.0	50.5	0.0	0.0	0.0
KOR REP	95.0	40.6	74.6	49.8	0.0	0.0
PHIL	11.7	2.0	0.0	0.0	0.0	0.0
THAILND	28.0	8.0	20.5	30.9	0.0	0.0
VIETNAM	0.0	0.0	9.9	0.0	0.0	0.0
AFRICA	317.2	1000.2	696.8	753.7	0.0	0.0
ANGOLA	0.0	0.0	42.5	6.0	0.0	0.0
CO BRAZ	0.0	0.0	0.0	2.6	0.0	0.0
CONGO DR	0.0	0.0	0.0	16.7	0.0	0.0
EGYPT	8.0	346.3	8.1	136.2	0.0	0.0
GUIN-BIS	0.0	0.0	12.1	0.0	0.0	0.0
LIBYA	0.0	0.0	34.6	0.0	0.0	0.0
MALI	0.0	0.0	6.0	0.0	0.0	0.0
MOROCCO	0.0	0.0	0.0	24.1	0.0	0.0
MOZAMBQ	0.0	0.0	0.0	13.6	0.0	0.0
NIGERIA	293.2	598.9	532.0	465.1	0.0	0.0
REP SAF	16.0	55.0	30.1	28.3	0.0	0.0
SENEGAL	0.0	0.0	0.1	0.0	0.0	0.0
SIER LN	0.0	0.0	8.9	12.9	0.0	0.0
SUDAN	0.0	0.0	22.5	0.0	0.0	0.0
TUNISIA	0.0	0.0	0.0	48.1	0.0	0.0
WESTERN HEMISPHERE	527.3	655.8	1071.6	1580.8	0.0	0.0
BELIZE	0.0	1.4	4.6	3.0	0.0	0.0
BOLIVIA	0.0	0.0	4.4	26.8	0.0	0.0
BRAZIL	0.0	44.0	0.0	319.8	0.0	0.0
C RICA	6.5	5.5	8.3	11.9	0.0	0.0
CANADA	0.0	0.0	0.0	0.4	0.0	0.0
CHILE	0.0	6.0	0.0	84.5	0.0	0.0
COLOMB	22.6	95.3	110.1	237.6	0.0	0.0
CUBA	75.0	170.0	105.6	59.8	0.0	0.0
DOM REP	10.0	29.5	23.1	6.1	0.0	0.0
ECUADOR	0.0	10.0	9.9	4.5	0.0	0.0
GUATMAL	34.5	29.5	70.8	45.2	0.0	0.0
GUYANA	0.0	0.0	2.6	2.1	0.0	0.0
HAITI	0.0	0.0	16.0	30.7	0.0	0.0
HONDURA	4.8	5.9	14.2	16.5	0.0	0.0
JAMAICA	0.0	0.0	0.0	2.3	0.0	0.0
MEXICO	303.9	178.8	380.6	367.2	0.0	0.0
NICARAG	0.0	0.0	0.0	1.9	0.0	0.0
PERU	54.5	40.3	287.0	258.9	0.0	0.0
SALVADR	3.0	0.0	16.6	1.9	0.0	0.0
SURINAM	0.0	0.0	0.0	2.9	0.0	0.0
TRINID	2.5	6.0	5.1	7.5	0.0	0.0
URUGUAY	0.0	0.0	0.0	26.3	0.0	0.0
VENEZ	10.0	33.6	12.7	63.0	0.0	0.0

WHEAT - HARD RED WINTER MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
DESTINATION	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
TOTAL KNOWN	1331.6	2021.4	2578.4	2835.7	0.0	0.0
TOTAL UNKNOWN	480.8	354.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	1812.5	2375.4	2578.4	2835.7	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

WHEAT - SOFT RED WINTER MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
DESTINATION	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
CHINA	441.6	0.0	307.1	57.7	0.0	0.0
OTHER ASIA AND OCEANIA	0.0	7.8	26.0	0.0	0.0	0.0
ISRAEL	0.0	7.8	17.0	0.0	0.0	0.0
U AR EM	0.0	0.0	9.0	0.0	0.0	0.0
AFRICA	326.5	269.9	280.2	316.8	0.0	0.0
CAMROON	0.0	0.0	6.3	0.0	0.0	0.0
EGYPT	242.0	236.5	196.4	251.4	0.0	0.0
MOROCCO	0.0	0.0	0.0	7.2	0.0	0.0
MOZAMBQ	0.0	0.0	3.8	5.5	0.0	0.0
NIGERIA	84.5	33.4	70.4	52.7	0.0	0.0
REP SAF	0.0	0.0	3.3	0.0	0.0	0.0
WESTERN HEMISPHERE	229.3	253.4	439.3	577.4	0.0	0.0
BARBADO	2.6	9.0	0.9	0.0	0.0	0.0
BOLIVIA	0.0	0.0	5.1	0.0	0.0	0.0
BRAZIL	0.0	0.0	52.4	54.4	0.0	0.0
C RICA	13.0	3.5	6.4	5.4	0.0	0.0
CHILE	0.0	0.0	0.0	77.6	0.0	0.0
COLOMB	20.4	47.6	52.9	45.1	0.0	0.0
DOM REP	7.0	5.5	15.0	11.1	0.0	0.0
ECUADOR	0.0	0.0	16.5	10.7	0.0	0.0
GUATMAL	8.5	19.4	14.2	14.3	0.0	0.0
GUYANA	0.0	0.0	0.0	1.0	0.0	0.0
HONDURA	1.2	2.8	8.3	14.8	0.0	0.0
JAMAICA	52.8	0.0	23.9	20.4	0.0	0.0
LW WW I	1.0	0.5	0.5	0.0	0.0	0.0
MEXICO	109.6	140.7	153.2	220.9	0.0	0.0
N ANTIL	0.0	2.3	0.0	0.0	0.0	0.0
NICARAG	0.0	0.0	0.0	6.1	0.0	0.0
PANAMA	3.8	6.7	9.0	11.7	0.0	0.0
PERU	0.0	0.0	27.5	26.2	0.0	0.0
SALVADR	5.0	0.0	22.8	9.0	0.0	0.0
TRINID	4.4	4.5	11.0	11.6	0.0	0.0
VENEZ	0.0	11.0	19.7	37.3	0.0	0.0

WHEAT - SOFT RED WINTER MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION		THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
TOTAL KNOWN	:	997.4	531.0	1052.7	952.0	0.0	0.0
TOTAL UNKNOWN	:	69.6	34.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	1067.0	565.0	1052.7	952.0	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	14.0	81.6	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

WHEAT - HARD RED SPRING MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
EUROPEAN UNION - 25	167.3	277.8	217.7	292.8	0.0	0.0
BELGIUM	0.0	11.0	11.1	21.5	0.0	0.0
FINLAND	0.0	0.0	0.0	2.2	0.0	0.0
GERMANY	0.0	12.0	0.0	7.3	0.0	0.0
ITALY	86.4	118.2	102.7	120.9	0.0	0.0
NETHLDS	3.7	0.0	9.4	10.4	0.0	0.0
PORTUGL	0.0	20.0	7.9	36.7	0.0	0.0
SPAIN	75.0	98.0	64.6	49.7	0.0	0.0
SWEDEN	0.0	2.0	0.0	6.0	0.0	0.0
U KING	2.2	16.6	22.0	38.2	0.0	0.0
OTHER EUROPE	0.0	0.0	17.7	27.6	0.0	0.0
ICELAND	0.0	0.0	0.0	0.4	0.0	0.0
SWITZLD	0.0	0.0	0.0	0.5	0.0	0.0
TURKEY	0.0	0.0	17.7	26.7	0.0	0.0
JAPAN	271.5	343.8	302.7	230.0	0.0	0.0
TAIWAN	24.6	80.0	101.4	142.5	0.0	0.0
CHINA	370.3	5.0	457.7	9.2	0.0	0.0
OTHER ASIA AND OCEANIA:	219.5	227.9	394.3	346.7	0.0	0.0
BURMA	0.6	1.0	0.0	0.0	0.0	0.0
INDNSIA	0.0	20.0	9.9	14.1	0.0	0.0
KOR REP	87.0	67.0	83.3	105.9	0.0	0.0
MALAYSA	0.0	24.0	18.7	4.6	0.0	0.0
PHIL	102.0	103.0	213.3	152.1	0.0	0.0
SINGAPR	0.0	5.0	3.0	8.0	0.0	0.0
THAILND	30.0	8.0	66.1	62.0	0.0	0.0
AFRICA	14.6	40.5	51.0	46.3	0.0	0.0
CAMROON	0.0	0.0	4.5	0.0	0.0	0.0
EGYPT	7.0	0.0	0.0	0.0	0.0	0.0
MOZAMBQ	0.0	0.0	4.6	13.2	0.0	0.0
NIGERIA	7.6	40.5	5.3	33.1	0.0	0.0
REP SAF	0.0	0.0	36.5	0.0	0.0	0.0
WESTERN HEMISPHERE	310.8	170.9	255.8	396.9	0.0	0.0
BARBADO	20.7	4.8	6.8	5.8	0.0	0.0
BELIZE	6.2	0.9	2.8	1.9	0.0	0.0
C RICA	35.0	7.0	17.9	18.4	0.0	0.0

WHEAT - HARD RED SPRING

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
COLOMB	0.0	20.9	13.4	18.9	0.0	0.0
CUBA	5.0	5.0	5.2	0.0	0.0	0.0
DOM REP	22.0	17.6	39.4	17.9	0.0	0.0
GUATMAL	12.5	29.2	0.0	9.3	0.0	0.0
GUYANA	0.0	0.0	3.3	7.3	0.0	0.0
HONDURA	5.2	4.9	10.1	10.2	0.0	0.0
JAMAICA	87.5	4.9	21.8	12.6	0.0	0.0
LW WW I	19.4	11.2	4.4	8.7	0.0	0.0
MEXICO	55.7	19.6	36.4	62.1	0.0	0.0
N ANTIL	0.0	2.2	0.0	0.0	0.0	0.0
NICARAG	5.5	4.5	10.5	23.5	0.0	0.0
PANAMA	6.0	25.2	5.1	17.2	0.0	0.0
PERU	0.0	0.0	2.2	6.3	0.0	0.0
SALVADR	8.5	0.0	33.8	25.1	0.0	0.0
TRINID	5.0	6.0	13.5	14.8	0.0	0.0
VENEZ	16.6	7.0	29.3	137.0	0.0	0.0
TOTAL KNOWN	1378.5	1145.8	1798.1	1492.1	0.0	0.0
TOTAL UNKNOWN	196.2	178.1	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	1574.7	1323.9	1798.1	1492.1	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	86.6	42.8	-	-
OPTIONAL ORIGIN	0.0	18.0	-	-	0.0	0.0

WHEAT - WHITE

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
JAPAN	177.8	152.5	119.5	181.2	0.0	0.0
TAIWAN	4.5	10.9	17.2	23.4	0.0	0.0
CHINA	220.0	0.0	118.0	8.8	0.0	0.0
OTHER ASIA AND OCEANIA:	701.2	363.0	533.3	450.8	0.0	0.0
HG KONG	0.7	1.7	1.3	1.8	0.0	0.0
INDNSIA	0.0	21.0	58.6	0.0	0.0	0.0
KOR REP	159.2	112.3	147.1	169.2	0.0	0.0
MALAYSA	0.0	16.0	0.0	0.0	0.0	0.0
PAKISTN	234.0	0.0	0.0	0.0	0.0	0.0
PHIL	144.8	159.0	171.0	118.8	0.0	0.0
SINGAPR	0.0	7.0	10.3	3.6	0.0	0.0
THAILND	33.0	16.0	40.7	45.3	0.0	0.0
U AR EM	0.0	0.0	0.0	10.7	0.0	0.0
VIETNAM	0.0	0.0	9.9	0.0	0.0	0.0
YEMEN	129.5	30.0	94.4	101.4	0.0	0.0
AFRICA	120.0	90.0	173.1	178.6	0.0	0.0
EGYPT	120.0	90.0	173.1	178.6	0.0	0.0
WESTERN HEMISPHERE	0.0	7.0	0.4	0.7	0.0	0.0
CANADA	0.0	0.0	0.4	0.7	0.0	0.0
ECUADOR	0.0	7.0	0.0	0.0	0.0	0.0

WHEAT - WHITE MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	: OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
	: THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	: SECOND YR:	THIRD YR
TOTAL KNOWN	: 1223.5	623.4	961.4	843.5	0.0	0.0
TOTAL UNKNOWN	: 0.0	32.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 1223.5	655.4	961.4	843.5	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

WHEAT - DURUM MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	: OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
	: THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	: SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 50.0	57.0	16.1	75.1	0.0	0.0
BELGIUM	: 0.0	0.0	0.0	3.1	0.0	0.0
GERMANY	: 0.0	0.0	0.0	5.0	0.0	0.0
ITALY	: 50.0	57.0	16.1	67.0	0.0	0.0
OTHER EUROPE	: 0.0	0.0	0.0	32.9	0.0	0.0
SWITZLD	: 0.0	0.0	0.0	32.9	0.0	0.0
TAIWAN	: 0.0	2.0	2.3	0.0	0.0	0.0
AFRICA	: 36.0	0.0	117.4	62.9	0.0	0.0
ALGERIA	: 36.0	0.0	104.5	0.0	0.0	0.0
MOROCCO	: 0.0	0.0	0.0	57.7	0.0	0.0
NIGERIA	: 0.0	0.0	7.4	5.2	0.0	0.0
REP SAF	: 0.0	0.0	5.4	0.0	0.0	0.0
WESTERN HEMISPHERE	: 6.5	42.5	12.9	61.1	0.0	0.0
C RICA	: 0.0	2.0	3.7	3.0	0.0	0.0
CANADA	: 0.0	0.0	0.1	0.1	0.0	0.0
CUBA	: 0.0	0.0	5.3	0.0	0.0	0.0
DOM REP	: 6.5	0.0	2.8	4.7	0.0	0.0
GUATMAL	: 0.0	0.0	0.0	5.0	0.0	0.0
HONDURA	: 0.0	0.0	1.1	1.1	0.0	0.0
PERU	: 0.0	0.0	0.0	5.0	0.0	0.0
VENEZ	: 0.0	40.5	0.0	42.2	0.0	0.0
TOTAL KNOWN	: 92.5	101.5	148.6	231.9	0.0	0.0
TOTAL UNKNOWN	: 17.0	64.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 109.5	165.5	148.6	231.9	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

ALL WHEAT

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 217.3	334.8	233.7	367.9	0.0	0.0
BELGIUM	: 0.0	11.0	11.1	24.7	0.0	0.0
FINLAND	: 0.0	0.0	0.0	2.2	0.0	0.0
GERMANY	: 0.0	12.0	0.0	12.3	0.0	0.0
ITALY	: 136.4	175.2	118.7	187.9	0.0	0.0
NETHLDS	: 3.7	0.0	9.4	10.4	0.0	0.0
PORTUGL	: 0.0	20.0	7.9	36.7	0.0	0.0
SPAIN	: 75.0	98.0	64.6	49.7	0.0	0.0
SWEDEN	: 0.0	2.0	0.0	6.0	0.0	0.0
U KING	: 2.2	16.6	22.0	38.2	0.0	0.0
OTHER EUROPE	: 0.0	0.0	17.7	60.5	0.0	0.0
ICELAND	: 0.0	0.0	0.0	0.4	0.0	0.0
SWITZLD	: 0.0	0.0	0.0	33.4	0.0	0.0
TURKEY	: 0.0	0.0	17.7	26.7	0.0	0.0
JAPAN	: 652.4	695.1	682.2	706.8	0.0	0.0
TAIWAN	: 53.7	134.0	173.3	215.8	0.0	0.0
CHINA	: 1031.9	5.0	882.8	75.7	0.0	0.0
OTHER ASIA AND OCEANIA:	1180.2	724.2	1451.1	953.3	0.0	0.0
BURMA	: 0.6	1.0	0.0	0.0	0.0	0.0
HG KONG	: 0.7	1.7	1.3	1.8	0.0	0.0
INDNSIA	: 0.0	60.0	78.4	14.1	0.0	0.0
IRAQ	: 0.0	0.0	159.6	0.0	0.0	0.0
ISRAEL	: 124.7	63.6	189.6	75.1	0.0	0.0
JORDAN	: 0.0	0.0	50.5	0.0	0.0	0.0
KOR REP	: 341.2	219.9	305.1	324.8	0.0	0.0
MALAYSA	: 0.0	40.0	18.7	4.6	0.0	0.0
PAKISTN	: 234.0	0.0	0.0	0.0	0.0	0.0
PHIL	: 258.5	264.0	384.3	270.9	0.0	0.0
SINGAPR	: 0.0	12.0	13.3	11.6	0.0	0.0
THAILND	: 91.0	32.0	127.3	138.2	0.0	0.0
U AR EM	: 0.0	0.0	9.0	10.7	0.0	0.0
VIETNAM	: 0.0	0.0	19.8	0.0	0.0	0.0
YEMEN	: 129.5	30.0	94.4	101.4	0.0	0.0
AFRICA	: 814.3	1400.6	1318.4	1358.2	0.0	0.0
ALGERIA	: 36.0	0.0	104.5	0.0	0.0	0.0
ANGOLA	: 0.0	0.0	42.5	6.0	0.0	0.0
CAMROON	: 0.0	0.0	10.8	0.0	0.0	0.0
CO BRAZ	: 0.0	0.0	0.0	2.6	0.0	0.0
CONGO DR	: 0.0	0.0	0.0	16.7	0.0	0.0
EGYPT	: 377.0	672.8	377.6	566.2	0.0	0.0
GUIN-BIS	: 0.0	0.0	12.1	0.0	0.0	0.0
LIBYA	: 0.0	0.0	34.6	0.0	0.0	0.0
MALI	: 0.0	0.0	6.0	0.0	0.0	0.0
MOROCCO	: 0.0	0.0	0.0	89.0	0.0	0.0
MOZAMBQ	: 0.0	0.0	8.4	32.3	0.0	0.0
NIGERIA	: 385.3	672.8	615.1	556.1	0.0	0.0
REP SAF	: 16.0	55.0	75.4	28.3	0.0	0.0
SENEGAL	: 0.0	0.0	0.1	0.0	0.0	0.0
SIER LN	: 0.0	0.0	8.9	12.9	0.0	0.0
SUDAN	: 0.0	0.0	22.5	0.0	0.0	0.0
TUNISIA	: 0.0	0.0	0.0	48.1	0.0	0.0
WESTERN HEMISPHERE	: 1073.9	1129.6	1780.0	2616.9	0.0	0.0
BARBADO	: 23.3	13.8	7.7	5.8	0.0	0.0
BELIZE	: 6.2	2.3	7.3	4.9	0.0	0.0

ALL WHEAT

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
BOLIVIA	: 0.0	0.0	9.5	26.8	0.0	0.0
BRAZIL	: 0.0	44.0	52.4	374.2	0.0	0.0
C RICA	: 54.5	18.0	36.3	38.7	0.0	0.0
CANADA	: 0.0	0.0	0.5	1.2	0.0	0.0
CHILE	: 0.0	6.0	0.0	162.1	0.0	0.0
COLOMB	: 43.0	163.8	176.4	301.5	0.0	0.0
CUBA	: 80.0	175.0	116.1	59.8	0.0	0.0
DOM REP	: 45.5	52.6	80.2	39.8	0.0	0.0
ECUADOR	: 0.0	17.0	26.4	15.3	0.0	0.0
GUATMAL	: 55.5	78.0	85.0	73.7	0.0	0.0
GUYANA	: 0.0	0.0	5.9	10.5	0.0	0.0
HAITI	: 0.0	0.0	16.0	30.7	0.0	0.0
HONDURA	: 11.2	13.6	33.7	42.6	0.0	0.0
JAMAICA	: 140.2	4.9	45.7	35.3	0.0	0.0
LW WW I	: 20.4	11.7	4.9	8.7	0.0	0.0
MEXICO	: 469.2	339.1	570.2	650.2	0.0	0.0
N ANTIL	: 0.0	4.5	0.0	0.0	0.0	0.0
NICARAG	: 5.5	4.5	10.5	31.4	0.0	0.0
PANAMA	: 9.7	31.9	14.1	28.8	0.0	0.0
PERU	: 54.5	40.3	316.7	296.3	0.0	0.0
SALVADR	: 16.5	0.0	73.1	36.0	0.0	0.0
SURINAM	: 0.0	0.0	0.0	2.9	0.0	0.0
TRINID	: 11.9	16.5	29.7	33.9	0.0	0.0
URUGUAY	: 0.0	0.0	0.0	26.3	0.0	0.0
VENEZ	: 26.6	92.1	61.6	279.5	0.0	0.0
TOTAL KNOWN	: 5023.6	4423.1	6539.2	6355.1	0.0	0.0
TOTAL UNKNOWN	: 763.5	662.1	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 5787.1	5085.2	6539.2	6355.1	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	100.6	124.4	-	-
OPTIONAL ORIGIN	: 0.0	18.0	-	-	0.0	0.0

WHEAT PRODUCTS

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 0.1	0.1	0.1	0.1	0.0	0.0
NETHLDS	: 0.1	0.1	0.1	0.1	0.0	0.0
OTHER EUROPE	: *	0.0	*	*	0.0	0.0
ICELAND	: *	0.0	*	*	0.0	0.0
JAPAN	: 0.0	0.0	*	*	0.0	0.0
TAIWAN	: *	0.0	0.0	*	0.0	0.0
OTHER ASIA AND OCEANIA:	0.0	0.0	0.6	0.3	0.0	0.0
AUSTRAL	: 0.0	0.0	0.0	*	0.0	0.0
GUAM	: 0.0	0.0	*	*	0.0	0.0
MARSHALL	: 0.0	0.0	0.3	0.2	0.0	0.0
MICRONES	: 0.0	0.0	*	0.0	0.0	0.0
NMARIANA	: 0.0	0.0	0.1	0.0	0.0	0.0

WHEAT PRODUCTS MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
S ARAB	: 0.0	0.0	0.1	0.0	0.0	0.0
AFRICA	: 0.0	0.0	*	0.0	0.0	0.0
TOGO	: 0.0	0.0	*	0.0	0.0	0.0
WESTERN HEMISPHERE	: 14.3	23.0	22.8	7.3	0.0	0.0
BAHAMAS	: 0.0	0.0	0.6	0.0	0.0	0.0
BERMUDA	: 0.0	*	0.0	0.1	0.0	0.0
CANADA	: 1.6	0.1	1.1	0.4	0.0	0.0
CAYMAN	: 0.0	0.0	*	0.0	0.0	0.0
COLOMB	: 0.0	0.0	0.3	0.2	0.0	0.0
CUBA	: 10.0	20.0	9.9	0.0	0.0	0.0
DOM REP	: 0.2	*	0.5	*	0.0	0.0
F W IND	: 0.0	0.0	*	0.0	0.0	0.0
HAITI	: 0.0	0.0	2.9	0.0	0.0	0.0
MEXICO	: 2.3	2.5	7.0	6.4	0.0	0.0
N ANTIL	: 0.0	0.0	0.1	0.0	0.0	0.0
PANAMA	: 0.0	0.0	0.2	0.0	0.0	0.0
TRINID	: 0.2	0.3	0.1	0.1	0.0	0.0
VIRGIN I	: *	0.0	0.1	0.1	0.0	0.0
TOTAL KNOWN	: 14.5	23.1	23.6	7.7	0.0	0.0
TOTAL UNKNOWN	: 0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 14.5	23.1	23.6	7.7	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

BARLEY - UNMILLED MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 0.0	0.0	6.0	0.0	0.0	0.0
IRELAND	: 0.0	0.0	1.8	0.0	0.0	0.0
U KING	: 0.0	0.0	4.2	0.0	0.0	0.0
JAPAN	: 10.5	14.2	30.5	40.8	0.0	0.0
WESTERN HEMISPHERE	: 0.5	23.4	3.8	3.1	0.0	0.0
CANADA	: 0.5	17.0	3.8	3.1	0.0	0.0
MEXICO	: 0.0	6.4	0.0	0.0	0.0	0.0
TOTAL KNOWN	: 10.9	37.6	40.2	43.8	0.0	0.0
TOTAL UNKNOWN	: 0.0	55.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 10.9	92.6	40.2	43.8	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

CORN - UNMILLED

MARKETING YEAR 09/01 - 08/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	0.0	0.0	123.4	29.4	0.0	0.0
CYPRUS	0.0	0.0	102.5	0.0	0.0	0.0
ITALY	0.0	0.0	5.1	0.0	0.0	0.0
MALTA	0.0	0.0	15.0	29.4	0.0	0.0
SPAIN	0.0	0.0	0.8	0.0	0.0	0.0
OTHER EUROPE	0.0	0.0	722.0	983.7	0.0	0.0
AZORES	0.0	0.0	5.9	0.0	0.0	0.0
BULGAR	0.0	0.0	*	0.0	0.0	0.0
ICELAND	0.0	0.0	7.3	10.8	0.0	0.0
TURKEY	0.0	0.0	708.7	972.9	0.0	0.0
FORMER SOVIET UNION-12:	0.0	0.0	48.9	11.7	0.0	0.0
RUSSIA	0.0	0.0	48.9	11.7	0.0	0.0
JAPAN	760.6	526.9	15271.6	15138.0	1666.2	0.0
TAIWAN	314.1	280.0	4643.9	4306.9	192.9	0.0
OTHER ASIA AND OCEANIA:	293.0	66.7	6925.7	1353.3	200.5	0.0
AUSTRAL	0.0	0.0	0.0	48.4	0.0	0.0
BAHRAIN	0.0	0.0	6.0	0.0	0.0	0.0
HG KONG	0.0	0.0	2.1	0.0	0.0	0.0
INDNSIA	120.0	65.0	223.9	0.0	0.0	0.0
IRAN	0.0	0.0	121.1	0.0	0.0	0.0
IRAQ	0.0	0.0	32.0	0.0	0.0	0.0
ISRAEL	22.0	0.0	1067.4	229.9	35.5	0.0
JORDAN	0.0	0.0	195.1	27.5	0.0	0.0
KOR REP	116.0	1.7	3604.5	263.3	165.0	0.0
LEBANON	0.0	0.0	272.1	117.2	0.0	0.0
MALAYSA	0.0	0.0	188.2	9.9	0.0	0.0
OMAN	0.0	0.0	22.2	0.0	0.0	0.0
S ARAB	0.0	0.0	399.3	210.4	0.0	0.0
SYRIA	35.0	0.0	753.6	446.8	0.0	0.0
YEMEN	0.0	0.0	38.2	0.0	0.0	0.0
AFRICA	54.8	159.1	6160.7	3954.9	369.6	0.0
ALGERIA	0.0	9.6	1383.9	917.5	15.0	0.0
C IVOIRE	0.0	0.0	0.0	1.7	0.0	0.0
CAMROON	0.0	0.0	5.5	4.7	0.0	0.0
EGYPT	54.8	149.4	3300.6	2745.4	300.0	0.0
GHANA	0.0	0.0	0.0	4.5	0.0	0.0
GUIN-BIS	0.0	0.0	5.7	4.9	0.0	0.0
LIBYA	0.0	0.0	30.7	0.0	0.0	0.0
MOROCCO	0.0	0.0	748.9	105.2	8.0	0.0
MOZAMBQ	0.0	0.0	7.4	5.9	0.0	0.0
NIGERIA	0.0	0.0	0.8	0.0	0.0	0.0
REP SAF	0.0	0.0	60.0	23.1	0.0	0.0
TUNISIA	0.0	0.0	617.3	142.2	46.6	0.0
WESTERN HEMISPHERE	374.7	564.9	13808.0	13867.8	1375.4	0.0
BARBADO	0.0	0.0	35.3	31.1	0.0	0.0
BRAZIL	0.0	0.0	0.0	7.4	0.0	0.0
C RICA	0.0	0.0	507.5	539.0	40.7	0.0
CANADA	91.5	81.5	1232.2	2872.2	68.9	0.0
CHILE	0.0	0.0	9.4	0.0	0.0	0.0
COLOMB	0.0	76.8	1867.2	1614.5	69.4	0.0
CUBA	3.8	15.0	494.0	287.4	166.1	0.0
DOM REP	0.0	83.4	839.3	987.9	72.5	0.0
ECUADOR	0.0	0.0	372.0	187.0	0.0	0.0
GUATMAL	39.3	90.4	499.8	382.9	146.0	0.0

CORN - UNMILLED

MARKETING YEAR 09/01 - 08/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
DESTINATION	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
GUYANA	: 0.0	0.0	0.0	5.9	0.0	0.0
HONDURA	: 0.0	4.0	233.3	179.5	0.0	0.0
JAMAICA	: 8.4	0.0	252.0	240.2	2.0	0.0
LW WW I	: 0.0	0.0	6.1	8.0	0.8	0.0
MEXICO	: 169.6	146.7	5815.2	5023.7	646.5	0.0
N ANTIL	: 0.0	0.0	0.0	4.6	0.0	0.0
NICARAG	: 12.4	6.7	78.1	71.5	0.0	0.0
PANAMA	: 0.0	0.0	269.8	272.8	35.0	0.0
PERU	: 0.0	0.0	131.6	42.3	0.0	0.0
SALVADR	: 6.3	11.6	439.2	373.6	0.0	0.0
SURINAM	: 0.0	0.0	16.5	17.9	0.0	0.0
TRINID	: 13.5	0.0	84.6	113.0	0.0	0.0
VENEZ	: 30.0	48.9	625.0	605.2	127.5	0.0
TOTAL KNOWN	: 1797.2	1597.7	47704.2	39645.7	3804.6	0.0
TOTAL UNKNOWN	: 379.9	301.9	0.0	0.0	1144.0	0.0
TOTAL KNOWN & UNKNOWN	: 2177.1	1899.6	47704.2	39645.7	4948.6	0.0
EXPORTS FOR OWN ACCT	: -	-	41.1	10.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

RYE - UNMILLED

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
DESTINATION	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
OTHER ASIA AND OCEANIA:	0.0	0.0	0.0	*	0.0	0.0
AUSTRAL	: 0.0	0.0	0.0	*	0.0	0.0
TOTAL KNOWN	: 0.0	0.0	0.0	*	0.0	0.0
TOTAL UNKNOWN	: 0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 0.0	0.0	0.0	*	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

OATS - UNMILLED

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
DESTINATION	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
WESTERN HEMISPHERE	: 0.0	0.1	0.0	1.3	0.0	0.0
CANADA	: 0.0	0.1	0.0	1.3	0.0	0.0

OATS - UNMILLED

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				:NEXT MARKETING YEAR	

		:OUTSTANDING SALES:		ACCUMULATED EXPORTS:		OUTSTANDING SALES	

DESTINATION		:THIS WEEK: YR AGO:		THIS WEEK: YR AGO		:SECOND YR: THIRD YR	

TOTAL KNOWN		:	0.0	0.1	0.0	1.3	0.0 0.0
TOTAL UNKNOWN		:	0.0	0.0	0.0	0.0	0.0 0.0

TOTAL KNOWN & UNKNOWN		:	0.0	0.1	0.0	1.3	0.0 0.0
EXPORTS FOR OWN ACCT		:	-	-	0.0	0.0	- -
OPTIONAL ORIGIN		:	0.0	0.0	-	-	0.0 0.0

GRAIN SORGHUMS - UNMILLED

MARKETING YEAR 09/01 - 08/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
EUROPEAN UNION - 25	0.0	0.0	857.4	182.1	0.0	0.0
IRELAND	0.0	0.0	15.3	0.0	0.0	0.0
ITALY	0.0	0.0	441.9	0.0	0.0	0.0
PORTUGL	0.0	0.0	58.3	0.0	0.0	0.0
SPAIN	0.0	0.0	338.7	182.1	0.0	0.0
U KING	0.0	0.0	3.3	0.0	0.0	0.0
JAPAN	48.1	62.4	819.0	1053.7	192.0	0.0
OTHER ASIA AND OCEANIA:	*	16.0	131.5	24.3	0.0	0.0
ISRAEL	0.0	16.0	131.5	24.2	0.0	0.0
KOR REP	*	0.0	0.1	*	0.0	0.0
AFRICA	0.0	0.0	16.6	55.6	0.0	0.0
ERITREA	0.0	0.0	0.0	33.0	0.0	0.0
REP SAF	0.0	0.0	16.6	22.6	0.0	0.0
WESTERN HEMISPHERE	164.7	158.2	2871.6	3424.4	449.5	0.0
CANADA	*	0.0	0.0	0.0	0.0	0.0
MEXICO	164.7	158.2	2871.6	3424.4	449.5	0.0
TOTAL KNOWN	212.8	236.7	4696.2	4740.1	641.5	0.0
TOTAL UNKNOWN	0.0	50.0	0.0	0.0	8.1	0.0
TOTAL KNOWN & UNKNOWN	212.8	286.7	4696.2	4740.1	649.7	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	9.0	-	-	0.0	0.0

SOYBEANS

MARKETING YEAR 09/01 - 08/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
EUROPEAN UNION - 25	3.0	45.0	3493.4	5689.2	495.0	0.0
BELGIUM	0.0	0.0	196.9	612.0	0.0	0.0
DENMARK	0.0	0.0	98.3	119.3	0.0	0.0
FINLAND	0.0	0.0	42.6	25.6	0.0	0.0
FRANCE	0.0	0.0	54.7	120.7	60.0	0.0
GERMANY	0.0	45.0	924.2	1429.6	300.0	0.0
GREECE	0.0	0.0	60.4	163.7	0.0	0.0
IRELAND	3.0	0.0	2.6	6.9	0.0	0.0
ITALY	0.0	0.0	23.7	299.2	0.0	0.0
NETHLDS	0.0	0.0	920.1	829.7	135.0	0.0
PORTUGL	0.0	0.0	158.3	527.5	0.0	0.0
SPAIN	0.0	0.0	938.8	1427.3	0.0	0.0
U KING	0.0	0.0	72.8	127.8	0.0	0.0
OTHER EUROPE	15.0	35.0	267.8	382.3	0.0	0.0
ROMANIA	0.0	0.0	0.0	21.3	0.0	0.0
TURKEY	15.0	35.0	267.8	361.0	0.0	0.0
JAPAN	24.1	203.3	3262.5	3537.5	381.9	0.0
TAIWAN	21.0	34.0	1363.7	1628.7	22.1	0.0
CHINA	0.0	0.0	8229.0	7680.9	2253.0	0.0
OTHER ASIA AND OCEANIA	122.5	115.9	3225.6	4468.4	343.5	0.0
AUSTRAL	0.0	0.0	8.2	70.4	0.0	0.0
HG KONG	0.0	0.0	0.1	0.0	0.0	0.0
INDNSIA	60.0	69.9	959.2	1257.2	60.0	0.0
IRAN	0.0	0.0	55.0	132.5	0.0	0.0
ISRAEL	0.0	0.0	190.6	375.4	13.5	0.0
KOR REP	1.5	40.0	1066.3	1188.9	150.0	0.0
LEBANON	0.0	0.0	69.6	45.9	0.0	0.0
MALAYSA	0.0	0.0	214.9	235.9	0.0	0.0
PAKISTN	0.0	0.0	0.0	42.3	0.0	0.0
PHIL	61.0	6.0	179.4	206.0	0.0	0.0
S LANKA	0.0	0.0	0.1	0.6	0.0	0.0
SINGAPR	0.0	0.0	0.1	0.1	0.0	0.0
SYRIA	0.0	0.0	38.4	30.1	0.0	0.0
THAILND	0.0	0.0	443.8	829.3	120.0	0.0
U AR EM	0.0	0.0	0.0	53.8	0.0	0.0
AFRICA	0.0	0.0	202.1	328.8	110.0	0.0
EGYPT	0.0	0.0	71.0	50.1	60.0	0.0
MOROCCO	0.0	0.0	131.0	275.1	50.0	0.0
NIGERIA	0.0	0.0	0.0	3.6	0.0	0.0
WESTERN HEMISPHERE	124.2	156.7	4063.6	5191.7	302.3	0.0
BARBADO	0.0	*	22.6	22.6	4.0	0.0
C RICA	0.0	0.0	166.4	215.6	20.2	0.0
CANADA	8.2	14.9	439.3	545.2	3.8	0.0
COLOMB	0.0	1.1	119.6	180.3	5.2	0.0
CUBA	20.0	0.0	118.8	94.6	0.0	0.0
GUATMAL	0.0	12.7	9.2	7.1	21.9	0.0
MEXICO	88.4	128.1	3117.4	4043.2	247.3	0.0
NICARAG	0.0	0.0	0.0	2.8	0.0	0.0
SALVADR	0.0	0.0	1.8	0.0	0.0	0.0
TRINID	7.5	0.0	60.5	80.4	0.0	0.0
VENEZ	0.0	0.0	8.0	0.0	0.0	0.0

SOYBEANS

MARKETING YEAR 09/01 - 08/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	: OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
	: THIS WEEK:	: YR AGO:	: THIS WEEK:	: YR AGO	: SECOND YR:	: THIRD YR
TOTAL KNOWN	: 309.8	589.9	24107.8	28907.5	3907.8	0.0
TOTAL UNKNOWN	: 0.0	9.3	0.0	0.0	1449.0	0.0
TOTAL KNOWN & UNKNOWN	: 309.8	599.2	24107.8	28907.5	5356.8	0.0
EXPORTS FOR OWN ACCT	: -	-	46.8	*	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	60.0	0.0

SOYBEAN CAKE AND MEAL

MARKETING YEAR 10/01 - 09/30

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	: OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
	: THIS WEEK:	: YR AGO:	: THIS WEEK:	: YR AGO	: SECOND YR:	: THIRD YR
EUROPEAN UNION - 25	: 16.0	4.5	15.3	64.6	0.0	0.0
BELGIUM	: 0.0	0.0	0.0	1.0	0.0	0.0
DENMARK	: 0.0	0.0	2.0	2.0	0.0	0.0
GREECE	: 0.0	0.0	0.0	7.4	0.0	0.0
HUNGARY	: 0.0	4.5	4.2	6.6	0.0	0.0
IRELAND	: 8.0	0.0	0.0	17.1	0.0	0.0
NETHLD	: 0.0	0.0	9.2	13.5	0.0	0.0
U KING	: 8.0	0.0	0.0	17.0	0.0	0.0
OTHER EUROPE	: 0.0	25.0	157.2	173.0	0.0	0.0
TURKEY	: 0.0	25.0	157.2	173.0	0.0	0.0
FORMER SOVIET UNION-12:	0.0	0.0	27.0	47.7	0.0	0.0
RUSSIA	: 0.0	0.0	27.0	47.7	0.0	0.0
JAPAN	: 20.8	33.1	134.3	213.7	8.0	0.0
OTHER ASIA AND OCEANIA:	1.5	166.9	665.6	1488.2	81.0	0.0
AUSTRAL	: 0.0	55.0	224.0	293.8	70.0	0.0
INDNSIA	: 0.0	88.9	94.9	542.1	0.0	0.0
ISRAEL	: 0.0	7.0	28.1	39.2	0.0	0.0
JORDAN	: 0.0	0.0	0.0	6.6	0.0	0.0
KOR REP	: *	0.0	0.1	99.6	0.0	0.0
N ZEAL	: 0.0	11.0	60.8	66.5	11.0	0.0
PHIL	: *	0.0	223.1	252.5	0.0	0.0
S ARAB	: 1.5	5.0	34.5	91.0	0.0	0.0
THAILND	: 0.0	0.0	0.0	96.8	0.0	0.0
AFRICA	: 0.0	14.0	246.2	259.2	24.0	0.0
ALGERIA	: 0.0	0.0	195.6	198.7	0.0	0.0
CAMROON	: 0.0	0.0	0.0	1.0	0.0	0.0
EGYPT	: 0.0	7.0	14.5	31.1	0.0	0.0
GHANA	: 0.0	0.0	0.0	6.3	0.0	0.0
TUNISIA	: 0.0	7.0	36.1	22.0	24.0	0.0
WESTERN HEMISPHERE	: 129.6	290.7	2518.1	2900.9	609.1	51.3
BELIZE	: 0.0	0.5	3.2	3.5	0.0	0.0
CANADA	: 42.8	60.9	798.3	954.8	471.9	51.3
COLOMB	: 0.0	7.0	107.6	61.2	3.0	0.0
CUBA	: 0.0	30.0	121.6	149.3	0.0	0.0
DOM REP	: 0.0	99.1	188.4	327.2	10.0	0.0
ECUADOR	: 0.0	0.0	0.0	30.1	0.0	0.0

SOYBEAN CAKE AND MEAL

MARKETING YEAR 10/01 - 09/30

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
GUATMAL	: 9.4	27.5	137.6	152.2	15.0	0.0
HONDURA	: 0.0	0.0	77.3	96.4	0.0	0.0
JAMAICA	: 4.3	5.3	91.6	86.3	2.6	0.0
LW WW I	: 0.3	0.3	0.7	1.3	0.0	0.0
MEXICO	: 69.8	31.6	650.5	525.8	100.4	0.0
N ANTIL	: 0.0	0.4	0.0	1.1	0.0	0.0
NICARAG	: 1.8	1.6	26.6	41.2	0.0	0.0
PANAMA	: 0.0	5.3	83.7	131.0	6.2	0.0
PERU	: 0.0	0.0	29.0	14.4	0.0	0.0
SALVADR	: 1.2	5.7	91.5	120.5	0.0	0.0
SURINAM	: 0.0	0.0	7.5	6.3	0.0	0.0
VENEZ	: 0.0	15.6	103.1	198.3	0.0	0.0
TOTAL KNOWN	: 167.9	534.2	3763.8	5147.3	722.1	51.3
TOTAL UNKNOWN	: 0.0	114.3	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 167.9	648.5	3763.8	5147.3	722.1	51.3
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

SOYBEAN OIL

MARKETING YEAR 10/01 - 09/30

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 0.0	0.0	0.2	0.1	0.0	0.0
CYPRUS	: 0.0	0.0	0.2	0.1	0.0	0.0
GERMANY	: 0.0	0.0	0.0	*	0.0	0.0
U KING	: 0.0	0.0	0.0	*	0.0	0.0
OTHER EUROPE	: 0.0	0.0	*	16.5	0.0	0.0
ICELAND	: 0.0	0.0	*	0.0	0.0	0.0
TURKEY	: 0.0	0.0	0.0	16.5	0.0	0.0
JAPAN	: 0.0	1.0	2.4	3.0	0.0	0.0
TAIWAN	: 0.0	0.0	0.0	10.0	0.0	0.0
CHINA	: 0.0	0.0	0.1	99.0	0.0	0.0
INDIA	: 0.0	0.0	0.0	0.3	0.0	0.0
OTHER ASIA AND OCEANIA:	0.4	0.7	9.2	62.3	3.6	0.0
AM SAMOA	: 0.0	0.0	0.0	*	0.0	0.0
AUSTRAL	: 0.1	*	0.5	0.1	0.0	0.0
BAHRAIN	: 0.0	0.0	0.2	0.1	0.0	0.0
GUAM	: 0.0	0.0	0.0	*	0.0	0.0
HG KONG	: *	*	1.4	1.0	0.0	0.0
INDNSIA	: 0.0	*	0.4	0.2	0.0	0.0
ISRAEL	: 0.0	0.0	0.5	0.4	0.0	0.0
JORDAN	: 0.0	0.0	0.1	9.6	0.0	0.0
KOR REP	: 0.0	0.0	0.9	41.0	0.0	0.0
KUWAIT	: *	*	1.2	4.7	0.0	0.0
LEBANON	: *	*	0.3	0.3	0.0	0.0

SOYBEAN OIL

MARKETING YEAR 10/01 - 09/30

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
NMARIANA	: 0.0	0.0	*	0.1	0.0	0.0
OMAN	: 0.0	0.0	0.1	0.1	0.0	0.0
PALAU	: 0.0	0.0	*	0.1	0.0	0.0
PHIL	: 0.0	*	0.1	*	0.0	0.0
QATAR	: 0.0	0.0	0.4	0.3	0.0	0.0
S ARAB	: 0.3	0.6	1.3	0.9	3.6	0.0
SINGAPR	: 0.0	0.0	0.6	0.4	0.0	0.0
THAILND	: 0.0	0.0	0.1	0.1	0.0	0.0
U AR EM	: 0.0	0.0	1.1	0.6	0.0	0.0
YEMEN	: 0.0	0.0	0.0	2.4	0.0	0.0
AFRICA	: 15.0	1.0	0.6	105.6	0.0	0.0
ALGERIA	: 0.0	0.0	0.0	21.5	0.0	0.0
EGYPT	: 0.0	1.0	0.6	54.6	0.0	0.0
MOROCCO	: 15.0	0.0	0.0	26.5	0.0	0.0
SENEGAL	: 0.0	0.0	0.0	3.0	0.0	0.0
WESTERN HEMISPHERE	: 17.7	60.1	198.1	369.3	51.5	0.0
BAHAMAS	: 0.0	0.0	0.4	0.3	0.0	0.0
BARBADO	: 0.0	*	0.7	0.1	0.0	0.0
C RICA	: 0.0	0.0	1.4	0.6	0.0	0.0
CANADA	: 3.6	31.2	50.3	58.5	0.5	0.0
COLOMB	: 0.0	0.0	0.6	1.7	0.0	0.0
CUBA	: 0.0	8.0	39.9	59.7	0.0	0.0
DOM REP	: 0.4	0.1	0.3	15.1	0.0	0.0
GUATMAL	: 0.0	1.0	4.3	15.6	0.0	0.0
HAITI	: 0.0	0.0	*	0.4	0.0	0.0
HONDURA	: 0.0	0.0	0.3	0.7	0.0	0.0
JAMAICA	: 2.5	2.0	11.9	16.6	0.0	0.0
MEXICO	: 10.6	14.8	74.2	163.0	51.0	0.0
N ANTIL	: 0.0	0.0	*	0.0	0.0	0.0
NICARAG	: 0.7	0.0	3.0	18.3	0.0	0.0
PANAMA	: 0.0	2.5	3.0	5.8	0.0	0.0
SALVADR	: 0.0	0.5	3.0	13.1	0.0	0.0
TRINID	: 0.0	0.0	4.9	0.0	0.0	0.0
TOTAL KNOWN	: 33.2	62.8	210.5	666.1	55.1	0.0
TOTAL UNKNOWN	: 3.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 36.2	62.8	210.5	666.1	55.1	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

LINSEED OIL

MARKETING YEAR 06/01 - 05/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 0.0	3.0	2.5	3.0	0.0	0.0
NETHLDS	: 0.0	3.0	2.5	3.0	0.0	0.0
JAPAN	: 0.0	0.0	*	0.0	0.0	0.0
CHINA	: 0.0	0.0	1.0	0.0	0.0	0.0

LINSEED OIL MARKETING YEAR 06/01 - 05/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	: OUTSTANDING SALES: ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	: THIS WEEK:	YR AGO:	: THIS WEEK:	YR AGO	: SECOND YR:	THIRD YR
WESTERN HEMISPHERE	: 0.3	0.6	0.3	0.3	0.0	0.0
CANADA	: 0.1	0.2	0.1	0.1	0.0	0.0
MEXICO	: 0.1	0.4	0.2	0.2	0.0	0.0
TOTAL KNOWN	: 0.3	3.6	3.9	3.3	0.0	0.0
TOTAL UNKNOWN	: 0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 0.3	3.6	3.9	3.3	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

SUNFLOWERSEED OIL MARKETING YEAR 10/01 - 09/30
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	: OUTSTANDING SALES: ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	: THIS WEEK:	YR AGO:	: THIS WEEK:	YR AGO	: SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 0.0	0.0	2.5	0.0	0.0	0.0
SPAIN	: 0.0	0.0	2.5	0.0	0.0	0.0
JAPAN	: 0.0	2.6	4.1	7.3	0.0	0.0
TAIWAN	: 0.0	0.0	0.5	4.5	0.0	0.0
OTHER ASIA AND OCEANIA:	*	*	2.4	4.8	0.0	0.0
IRAQ	: 0.0	0.0	*	0.0	0.0	0.0
JORDAN	: 0.0	0.0	2.0	1.0	0.0	0.0
KUWAIT	: 0.0	0.0	*	0.0	0.0	0.0
LEBANON	: *	*	0.3	0.2	0.0	0.0
S ARAB	: 0.0	0.0	0.0	3.6	0.0	0.0
AFRICA	: 0.0	0.0	12.1	3.0	0.0	0.0
ALGERIA	: 0.0	0.0	12.1	0.0	0.0	0.0
EGYPT	: 0.0	0.0	0.0	3.0	0.0	0.0
WESTERN HEMISPHERE	: 3.3	5.5	85.7	31.1	3.1	0.0
C RICA	: 0.0	0.6	2.1	3.6	0.0	0.0
CANADA	: 1.7	1.5	11.4	12.4	2.6	0.0
GUATMAL	: 0.0	0.2	0.5	1.9	0.0	0.0
MEXICO	: 1.6	3.2	70.2	12.9	0.5	0.0
N ANTIL	: 0.0	0.0	*	0.0	0.0	0.0
NICARAG	: 0.0	0.0	1.2	0.0	0.0	0.0
SALVADR	: 0.0	0.0	0.3	0.3	0.0	0.0
TOTAL KNOWN	: 3.3	8.1	107.3	50.7	3.1	0.0
TOTAL UNKNOWN	: 0.0	0.5	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 3.3	8.5	107.3	50.7	3.1	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

COTTONSEED MARKETING YEAR 08/01 - 07/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

	:	CURRENT MARKETING YEAR				:NEXT MARKETING YEAR	
	:	:OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	:	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
JAPAN	:	0.1	15.2	0.0	0.0	0.0	0.0
TAIWAN	:	0.0	0.0	0.1	0.0	0.0	0.0
OTHER ASIA AND OCEANIA:	:	20.7	13.1	1.0	1.5	0.0	0.0
KOR REP	:	20.7	13.1	1.0	1.5	0.0	0.0
WESTERN HEMISPHERE	:	9.7	1.4	7.9	1.6	0.0	0.0
MEXICO	:	9.7	1.4	7.9	1.6	0.0	0.0
TOTAL KNOWN	:	30.5	29.6	9.0	3.1	0.0	0.0
TOTAL UNKNOWN	:	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	30.5	29.6	9.0	3.1	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

COTTONSEED CAKE AND MEAL MARKETING YEAR 10/01 - 09/30
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION		THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
WESTERN HEMISPHERE	:	7.8	10.4	103.4	88.4	0.0	0.0
MEXICO	:	7.8	10.4	103.4	88.4	0.0	0.0
TOTAL KNOWN	:	7.8	10.4	103.4	88.4	0.0	0.0
TOTAL UNKNOWN	:	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	7.8	10.4	103.4	88.4	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

COTTONSEED OIL MARKETING YEAR 10/01 - 09/30
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION		THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
	:						
EUROPEAN UNION - 25	:	0.0	0.0	0.1	*	0.0	0.0
GREECE	:	0.0	0.0	0.1	0.0	0.0	0.0
U KING	:	0.0	0.0	*	*	0.0	0.0
	:						
JAPAN	:	1.1	4.5	5.0	0.6	0.0	0.0
	:						
CHINA	:	0.0	0.0	0.1	0.0	0.0	0.0
	:						

COTTONSEED OIL

MARKETING YEAR 10/01 - 09/30

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
OTHER ASIA AND OCEANIA:	0.0	0.0	*	*	0.0	0.0
LEBANON	0.0	0.0	*	*	0.0	0.0
WESTERN HEMISPHERE	0.9	0.4	2.9	5.1	0.0	0.0
CANADA	0.7	0.2	1.5	1.5	0.0	0.0
COLOMB	0.0	0.0	*	0.0	0.0	0.0
MEXICO	0.3	0.2	1.3	3.2	0.0	0.0
SALVADR	0.0	0.0	0.0	0.4	0.0	0.0
TOTAL KNOWN	2.0	4.9	8.0	5.7	0.0	0.0
TOTAL UNKNOWN	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	2.0	4.9	8.0	5.7	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

COTTON - AMERICAN PIMA - RAW, EXTRA LONG STAPLE

MARKETING YEAR 08/01 - 07/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 RUNNING BALES AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
EUROPEAN UNION - 25	10.2	27.9	0.3	0.7	0.0	0.0
AUSTRIA	2.1	0.0	0.0	0.0	0.0	0.0
BELGIUM	2.1	6.5	0.0	0.0	0.0	0.0
GERMANY	0.4	15.2	0.0	0.0	0.0	0.0
ITALY	5.5	6.1	0.3	0.5	0.0	0.0
PORTUGL	0.0	0.0	0.0	0.3	0.0	0.0
OTHER EUROPE	4.0	10.8	0.0	0.0	0.0	0.0
SWITZLD	4.0	10.8	0.0	0.0	0.0	0.0
JAPAN	23.2	16.2	3.3	3.3	0.0	0.0
TAIWAN	0.7	0.0	0.0	0.0	0.0	0.0
CHINA	1.4	0.3	0.9	0.1	0.0	0.0
INDIA	0.9	13.5	1.9	1.1	0.0	0.0
OTHER ASIA AND OCEANIA:	21.3	11.8	15.3	10.6	0.0	0.0
BANGLADH	0.3	0.2	1.3	2.0	0.0	0.0
INDNSIA	4.8	1.3	3.1	1.7	0.0	0.0
KOR REP	4.1	1.4	1.1	0.0	0.0	0.0
MALAYSA	0.3	0.0	0.1	0.0	0.0	0.0
PAKISTN	7.8	7.9	4.3	6.1	0.0	0.0
THAILND	4.0	1.1	0.6	0.8	0.0	0.0
U AR EM	0.0	0.0	4.3	0.0	0.0	0.0
VIETNAM	0.0	0.0	0.5	0.0	0.0	0.0
WESTERN HEMISPHERE	9.0	6.9	3.0	1.0	0.0	0.0
BRAZIL	0.0	0.9	0.3	0.2	0.0	0.0
CANADA	*	0.0	2.7	0.0	0.0	0.0
CHILE	0.0	0.0	*	0.0	0.0	0.0
GUATMAL	0.3	0.0	0.0	0.0	0.0	0.0

COTTON - AMERICAN PIMA - RAW, EXTRA LONG STAPLE MARKETING YEAR 08/01 - 07/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 RUNNING BALES AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION		THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
MEXICO	:	0.0	0.3	0.0	0.0	0.0	0.0
PERU	:	8.7	5.7	0.0	0.8	0.0	0.0
TOTAL KNOWN	:	70.6	87.5	24.9	16.8	0.0	0.0
TOTAL UNKNOWN	:	0.0	2.6	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	70.6	90.0	24.9	16.8	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

ALL UPLAND COTTON MARKETING YEAR 08/01 - 07/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 RUNNING BALES AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	:THIS WEEK:	YR AGO:	:THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 119.8	49.2	57.3	12.4	10.8	0.0
AUSTRIA	: 2.0	0.0	1.0	0.0	0.0	0.0
BELGIUM	: 28.7	0.0	46.3	4.6	0.0	0.0
ESTONIA	: 5.3	4.2	0.5	1.0	0.0	0.0
FRANCE	: 0.0	0.0	0.0	0.3	0.0	0.0
GERMANY	: 1.8	0.9	0.3	0.0	0.0	0.0
IRELAND	: 37.3	11.7	1.4	3.7	7.5	0.0
ITALY	: 42.4	28.4	7.0	1.0	3.3	0.0
PORTUGL	: 1.3	0.3	0.0	1.1	0.0	0.0
SLOVENIA	: 1.1	1.3	0.7	0.3	0.0	0.0
SWEDEN	: 0.0	2.5	0.0	0.4	0.0	0.0
OTHER EUROPE	: 294.0	100.3	113.5	156.1	0.4	0.0
SWITZLD	: 0.0	2.3	0.0	0.0	0.0	0.0
TURKEY	: 294.0	98.1	113.5	156.1	0.4	0.0
JAPAN	: 156.8	90.7	12.1	19.5	0.0	0.0
TAIWAN	: 51.5	46.4	42.1	29.0	0.0	0.0
CHINA	: 130.0	50.7	56.4	58.4	0.0	0.0
INDIA	: 32.4	55.9	58.4	81.2	0.0	0.0
OTHER ASIA AND OCEANIA:	1707.2	596.5	272.9	219.6	9.9	0.0
BAHRAIN	: 5.5	4.0	0.0	2.8	0.0	0.0
BANGLADH	: 30.2	26.6	27.6	28.1	0.0	0.0
CAMBODIA	: 0.0	0.4	0.0	0.4	0.0	0.0
HG KONG	: 66.9	*	24.8	5.8	0.0	0.0
INDNSIA	: 564.2	264.2	64.6	67.2	6.2	0.0
KOR REP	: 362.4	163.5	20.0	57.1	2.7	0.0
MALAYSA	: 1.3	0.7	1.5	0.5	0.0	0.0
PAKISTN	: 239.7	16.7	72.9	10.5	0.0	0.0
PHIL	: 62.8	19.5	4.5	3.6	1.0	0.0
S LANKA	: 4.2	4.7	0.7	0.6	0.0	0.0
SINGAPR	: 0.0	0.0	0.0	2.0	0.0	0.0
THAILND	: 333.6	91.5	42.8	30.9	0.0	0.0
U AR EM	: 2.6	0.0	3.3	0.0	0.0	0.0
VIETNAM	: 33.8	4.7	10.3	10.1	0.0	0.0

ALL UPLAND COTTON

MARKETING YEAR 08/01 - 07/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 RUNNING BALES AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
AFRICA	2.2	0.0	0.0	0.0	0.0	0.0
MAURIT	2.2	0.0	0.0	0.0	0.0	0.0
WESTERN HEMISPHERE	1728.8	1357.4	122.3	216.9	136.3	0.0
BRAZIL	32.8	26.8	2.1	13.1	0.0	0.0
CANADA	262.1	319.4	16.3	20.1	3.1	0.0
CHILE	2.1	0.0	0.0	4.5	0.0	0.0
COLOMB	25.1	59.3	2.0	10.2	0.0	0.0
CUBA	3.9	1.1	0.0	0.3	0.0	0.0
ECUADOR	25.7	18.0	8.5	5.8	0.0	0.0
GUATMAL	51.0	9.4	4.5	11.0	6.4	0.0
HONDURA	2.0	0.4	0.0	0.2	0.0	0.0
MEXICO	1213.6	832.0	76.9	132.8	110.4	0.0
PERU	20.4	9.8	7.9	4.4	0.0	0.0
SALVADR	67.7	46.7	4.1	11.5	16.4	0.0
VENEZ	22.4	34.4	0.0	2.9	0.0	0.0
TOTAL KNOWN	4222.7	2347.1	735.0	793.0	157.3	0.0
TOTAL UNKNOWN	19.1	44.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	4241.8	2391.1	735.0	793.0	157.3	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

LONG GRAIN, ROUGH

MARKETING YEAR 08/01 - 07/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
	:					
EUROPEAN UNION - 25	:	10.0	0.0	0.0	0.0	0.0
SPAIN	:	10.0	0.0	0.0	0.0	0.0
	:					
WESTERN HEMISPHERE	:	118.0	118.9	84.6	168.8	0.0
BRAZIL	:	0.0	0.0	0.0	61.8	0.0
GUATMAL	:	0.4	0.0	0.0	0.0	0.0
HONDURA	:	1.4	3.0	1.0	12.0	0.0
JAMAICA	:	17.5	16.8	3.4	5.3	0.0
MEXICO	:	69.7	87.2	43.7	40.1	0.0
NICARAG	:	18.0	10.5	30.7	7.5	0.0
SALVADR	:	11.1	1.4	5.8	3.4	0.0
VENEZ	:	0.0	0.0	0.0	38.8	0.0
	:					
TOTAL KNOWN	:	128.0	118.9	84.6	168.8	0.0
TOTAL UNKNOWN	:	0.0	11.0	0.0	0.0	0.0
	:					
TOTAL KNOWN & UNKNOWN	:	128.0	129.9	84.6	168.8	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0

ALL RICE

MARKETING YEAR 08/01 - 07/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS:				OUTSTANDING SALES	
	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	45.6	35.8	13.2	26.5	0.0	0.0
AUSTRIA	0.0	*	0.0	0.0	0.0	0.0
BELGIUM	4.7	3.8	*	4.4	0.0	0.0
CYPRUS	0.5	0.0	0.0	0.0	0.0	0.0
DENMARK	0.0	0.0	*	0.0	0.0	0.0
FINLAND	0.2	0.1	0.0	0.1	0.0	0.0
FRANCE	3.5	1.9	1.6	2.0	0.0	0.0
GERMANY	13.6	10.6	2.5	8.5	0.0	0.0
ITALY	0.0	0.0	*	0.0	0.0	0.0
MALTA	0.2	0.2	*	*	0.0	0.0
NETHLDS	1.5	5.4	0.4	0.4	0.0	0.0
POLAND	0.0	0.2	0.0	0.0	0.0	0.0
SPAIN	10.0	0.9	0.0	0.1	0.0	0.0
SWEDEN	0.4	1.0	0.5	0.1	0.0	0.0
U KING	11.0	11.8	8.2	10.8	0.0	0.0
OTHER EUROPE	9.3	4.5	0.3	4.1	0.0	0.0
GIBRALT	*	*	0.0	0.0	0.0	0.0
ICELAND	0.1	0.1	*	*	0.0	0.0
NORWAY	1.1	0.7	0.1	0.2	0.0	0.0
SWITZLD	8.0	3.6	0.1	4.0	0.0	0.0
TURKEY	0.0	*	0.0	0.0	0.0	0.0
FORMER SOVIET UNION-12:	0.3	0.1	0.1	0.2	0.0	0.0
RUSSIA	0.3	0.1	0.1	0.2	0.0	0.0
JAPAN	0.2	3.1	0.6	1.1	0.0	0.0
TAIWAN	10.0	36.1	4.5	4.5	0.0	0.0
OTHER ASIA AND OCEANIA:	41.9	18.1	12.6	6.0	0.0	0.0
AM SAMOA	0.3	*	*	*	0.0	0.0
AUSTRAL	0.1	*	*	0.1	0.0	0.0
BAHRAIN	0.0	0.0	0.0	*	0.0	0.0
BR P IS	0.1	0.0	0.0	0.0	0.0	0.0
FR P IS	0.1	*	0.0	0.0	0.0	0.0
GUAM	0.2	0.3	0.2	0.4	0.0	0.0
HG KONG	0.6	0.1	*	0.3	0.0	0.0
INDNSIA	*	0.1	0.1	*	0.0	0.0
ISRAEL	6.2	0.3	0.1	0.1	0.0	0.0
JORDAN	12.5	0.6	1.7	0.0	0.0	0.0
KOR REP	15.0	0.0	0.0	*	0.0	0.0
KUWAIT	0.0	0.1	*	*	0.0	0.0
LEBANON	1.3	1.0	0.2	0.1	0.0	0.0
MACAU	0.0	0.0	*	0.0	0.0	0.0
MALAYSA	0.0	0.0	*	*	0.0	0.0
MARSHALL	*	*	*	0.1	0.0	0.0
MICRONES	1.0	*	0.3	0.9	0.0	0.0
N ZEAL	0.0	*	0.0	0.0	0.0	0.0
NMARIANA	0.2	0.1	0.1	0.2	0.0	0.0
PAKISTN	0.0	0.0	0.0	*	0.0	0.0
PALAU	0.2	*	*	0.1	0.0	0.0
S ARAB	0.3	13.1	8.2	2.0	0.0	0.0
S LANKA	*	0.0	0.0	0.0	0.0	0.0
SINGAPR	0.6	*	0.1	*	0.0	0.0
SYRIA	0.0	1.0	0.0	0.0	0.0	0.0
U AR EM	1.3	0.5	0.1	*	0.0	0.0
W SAMOA	2.1	0.0	1.1	0.3	0.0	0.0
YEMEN	0.0	0.6	0.3	1.1	0.0	0.0
AFRICA	7.8	27.1	10.0	12.0	0.0	0.0

ALL RICE

MARKETING YEAR 08/01 - 07/31

OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
1000 METRIC TONS AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
ANGOLA	0.1	0.1	0.0	0.0	0.0	0.0
C IVOIRE	0.0	0.0	3.0	0.0	0.0	0.0
EGYPT	0.2	0.1	0.0	0.0	0.0	0.0
ETHIOP	0.0	0.0	*	0.0	0.0	0.0
F IND O	0.0	0.1	0.0	0.2	0.0	0.0
GHANA	6.0	8.0	7.0	2.0	0.0	0.0
GUIN-CON	0.0	1.4	0.0	0.5	0.0	0.0
LIBERIA	0.8	5.7	0.0	2.3	0.0	0.0
LIBYA	0.2	0.1	0.0	0.0	0.0	0.0
MOROCCO	0.0	0.1	0.0	0.1	0.0	0.0
NIGERIA	0.5	0.4	0.0	*	0.0	0.0
REP SAF	0.0	11.2	0.0	6.8	0.0	0.0
TUNISIA	0.0	0.1	0.0	0.0	0.0	0.0
WESTERN HEMISPHERE	187.2	265.8	100.2	233.7	0.0	0.0
ARGENT	0.0	0.9	0.0	0.2	0.0	0.0
BAHAMAS	0.5	0.2	0.4	0.4	0.0	0.0
BARBADO	0.0	1.0	0.0	0.0	0.0	0.0
BELIZE	*	*	0.0	*	0.0	0.0
BERMUDA	0.4	0.1	0.0	0.1	0.0	0.0
BRAZIL	0.0	2.0	*	64.8	0.0	0.0
C RICA	0.3	0.2	0.1	*	0.0	0.0
CANADA	31.0	56.4	8.7	12.9	0.0	0.0
CAYMAN	0.1	*	0.0	*	0.0	0.0
CHILE	*	1.1	0.0	0.0	0.0	0.0
COLOMB	0.1	0.1	0.0	0.0	0.0	0.0
CUBA	0.0	0.0	*	10.0	0.0	0.0
DOM REP	*	0.1	0.0	0.0	0.0	0.0
ECUADOR	*	0.0	0.0	0.0	0.0	0.0
F W IND	0.1	0.3	0.0	1.1	0.0	0.0
GUATMAL	0.5	1.1	0.0	0.2	0.0	0.0
HAITI	15.9	66.5	1.8	29.4	0.0	0.0
HONDURA	1.4	3.4	1.0	12.6	0.0	0.0
JAMAICA	20.7	16.9	3.5	5.4	0.0	0.0
LW WW I	1.3	1.3	*	1.2	0.0	0.0
MEXICO	83.0	94.5	47.6	42.6	0.0	0.0
N ANTIL	0.1	0.2	0.4	0.1	0.0	0.0
NICARAG	18.9	11.0	30.8	7.7	0.0	0.0
PANAMA	0.6	0.2	0.0	*	0.0	0.0
PERU	0.0	4.0	0.0	0.2	0.0	0.0
SALVADR	11.1	1.4	5.8	3.4	0.0	0.0
TRINID	0.1	2.5	0.0	2.5	0.0	0.0
TURK IS	*	0.0	0.0	0.0	0.0	0.0
VENEZ	*	0.1	*	38.8	0.0	0.0
VIRGIN I	0.9	0.3	*	*	0.0	0.0
TOTAL KNOWN	302.2	390.6	141.6	288.1	0.0	0.0
TOTAL UNKNOWN	0.0	11.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	302.2	401.6	141.6	288.1	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

CATTLE HIDES - WHOLE - EXCLUDING WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 PIECES AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
EUROPEAN UNION - 25	60.6	69.9	345.4	827.1	0.0	0.0
AUSTRIA	0.3	0.0	0.6	0.0	0.0	0.0
FRANCE	0.0	0.0	0.0	0.6	0.0	0.0
GERMANY	0.0	0.0	4.7	0.0	0.0	0.0
ITALY	54.2	48.6	283.7	721.1	0.0	0.0
NETHLDS	6.0	11.4	45.6	37.0	0.0	0.0
PORTUGL	0.0	0.0	7.9	2.5	0.0	0.0
SPAIN	0.0	2.0	0.9	64.5	0.0	0.0
U KING	0.0	7.8	2.2	1.3	0.0	0.0
OTHER EUROPE	0.0	3.1	38.7	49.5	0.0	0.0
CROATIA	0.0	0.0	0.0	0.9	0.0	0.0
TURKEY	0.0	3.1	38.7	48.7	0.0	0.0
JAPAN	315.4	324.9	893.3	953.5	0.0	0.0
TAIWAN	216.8	211.6	1454.2	1556.3	0.0	0.0
CHINA	1261.5	1203.4	4924.9	4294.8	0.0	0.0
INDIA	0.0	0.0	0.0	0.9	0.0	0.0
OTHER ASIA AND OCEANIA:	1905.9	2020.8	6359.3	7011.2	0.0	0.0
HG KONG	548.4	623.3	1140.1	1472.3	0.0	0.0
KOR REP	1304.1	1336.4	4724.3	5002.6	0.0	0.0
N ZEAL	0.0	0.0	0.0	4.2	0.0	0.0
PHIL	0.2	0.0	0.0	0.0	0.0	0.0
THAILND	48.7	61.1	475.6	530.5	0.0	0.0
VIETNAM	4.7	0.0	19.3	1.5	0.0	0.0
AFRICA	34.0	0.0	66.1	0.0	0.0	0.0
REP SAF	34.0	0.0	66.1	0.0	0.0	0.0
WESTERN HEMISPHERE	303.8	350.2	990.0	1137.6	0.0	0.0
ARGENT	0.0	2.1	0.5	3.9	0.0	0.0
BRAZIL	0.0	2.0	0.0	3.6	0.0	0.0
CANADA	9.1	12.2	151.1	135.3	0.0	0.0
DOM REP	0.0	7.1	29.5	4.0	0.0	0.0
MEXICO	294.7	326.8	806.5	971.8	0.0	0.0
URUGUAY	0.0	0.0	2.4	19.1	0.0	0.0
TOTAL KNOWN	4098.0	4183.9	15071.8	15831.0	0.0	0.0
TOTAL UNKNOWN	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	4098.0	4183.9	15071.8	15831.0	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

CALF SKINS - WHOLE - EXCLUDING WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 PIECES AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
EUROPEAN UNION - 25	27.2	3.9	458.9	711.9	0.0	0.0
ITALY	27.2	3.9	458.9	711.9	0.0	0.0
OTHER EUROPE	0.0	0.0	4.8	0.0	0.0	0.0
TURKEY	0.0	0.0	4.8	0.0	0.0	0.0
JAPAN	9.4	10.4	22.1	23.2	0.0	0.0
CHINA	0.0	2.2	4.1	1.7	0.0	0.0
INDIA	0.0	0.0	38.1	0.0	0.0	0.0
OTHER ASIA AND OCEANIA:	21.1	0.0	61.8	0.0	0.0	0.0
HONG KONG	19.5	0.0	57.8	0.0	0.0	0.0
ISRAEL	1.6	0.0	0.0	0.0	0.0	0.0
PAKISTAN	0.0	0.0	4.0	0.0	0.0	0.0
WESTERN HEMISPHERE	28.7	2.8	30.3	1.5	0.0	0.0
CANADA	28.7	0.0	30.3	0.0	0.0	0.0
MEXICO	0.0	2.8	0.0	1.5	0.0	0.0
TOTAL KNOWN	86.4	19.3	620.0	738.2	0.0	0.0
TOTAL UNKNOWN	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	86.4	19.3	620.0	738.2	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

KIP SKINS - WHOLE - EXCLUDING WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 PIECES AS OF AUGUST 26, 2004

DESTINATION	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
	THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
EUROPEAN UNION - 25	7.3	7.6	210.2	276.0	0.0	0.0
FRANCE	0.0	2.6	1.3	2.6	0.0	0.0
ITALY	5.9	5.0	206.1	269.5	0.0	0.0
SPAIN	1.4	0.0	2.8	3.9	0.0	0.0
OTHER EUROPE	0.0	0.0	4.0	0.7	0.0	0.0
TURKEY	0.0	0.0	4.0	0.7	0.0	0.0
JAPAN	5.1	10.4	126.7	79.5	0.0	0.0
TAIWAN	0.0	0.0	1.0	0.0	0.0	0.0
CHINA	5.4	29.8	16.3	52.2	0.0	0.0
OTHER ASIA AND OCEANIA:	9.6	21.8	116.6	122.3	0.0	0.0
HONG KONG	4.0	4.6	99.6	97.9	0.0	0.0
ISRAEL	0.0	0.0	1.5	5.4	0.0	0.0
KOR REP	5.6	17.2	15.5	19.1	0.0	0.0
WESTERN HEMISPHERE	0.8	2.5	9.4	5.3	0.0	0.0

KIP SKINS - WHOLE - EXCLUDING WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 PIECES AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION		THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
CANADA	:	0.0	0.0	0.0	1.4	0.0	0.0
MEXICO	:	0.8	2.5	9.4	4.0	0.0	0.0
TOTAL KNOWN	:	28.1	72.1	484.1	536.0	0.0	0.0
TOTAL UNKNOWN	:	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	28.1	72.1	484.1	536.0	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

CATTLE HIDES-CUT INTO CROUPONS, ETC-EXCL WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 NUMBER AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION		THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
WESTERN HEMISPHERE	:	0.0	0.0	3.9	8.4	0.0	0.0
MEXICO	:	0.0	0.0	3.9	8.4	0.0	0.0
TOTAL KNOWN	:	0.0	0.0	3.9	8.4	0.0	0.0
TOTAL UNKNOWN	:	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	0.0	0.0	3.9	8.4	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

CATTLE HIDES AND SKINS-OTHER-EXCLUDING WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 POUNDS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
EUROPEAN UNION - 25	270.0	0.0	360.0	225.0	0.0	0.0
ITALY	0.0	0.0	45.0	225.0	0.0	0.0
SPAIN	270.0	0.0	315.0	0.0	0.0	0.0
CHINA	0.0	0.0	0.0	270.0	0.0	0.0
OTHER ASIA AND OCEANIA:	0.0	720.0	0.0	947.9	0.0	0.0
HONG KONG	0.0	0.0	0.0	91.1	0.0	0.0
KOR REP	0.0	720.0	0.0	856.8	0.0	0.0
WESTERN HEMISPHERE	495.0	450.0	1530.0	3076.5	0.0	0.0
MEXICO	495.0	450.0	1530.0	3076.5	0.0	0.0

CATTLE HIDES AND SKINS-OTHER-EXCLUDING WET BLUES MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 POUNDS AS OF AUGUST 26, 2004

	:	CURRENT MARKETING YEAR				:	NEXT MARKETING YEAR
	:	OUTSTANDING SALES:		ACCUMULATED EXPORTS:		OUTSTANDING SALES	
DESTINATION	:	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:	SECOND YR: THIRD YR
TOTAL KNOWN	:	765.0	1170.0	1890.0	4519.3	0.0	0.0
TOTAL UNKNOWN	:	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	:	765.0	1170.0	1890.0	4519.3	0.0	0.0
EXPORTS FOR OWN ACCT	:	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	:	0.0	0.0	-	-	0.0	0.0

CATTLE WET BLUES-UNSPPLIT (WHOLE OR SIDED) MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 NUMBER AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES: ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	SECOND YR:	THIRD YR
EUROPEAN UNION - 25	34.5	118.7	608.3	710.4	0.0	0.0
FRANCE	2.1	0.0	0.0	0.0	0.0	0.0
ITALY	32.4	118.7	608.3	710.4	0.0	0.0
TAIWAN	28.0	96.8	374.6	542.8	0.0	0.0
CHINA	45.5	23.6	376.1	151.5	0.0	0.0
INDIA	0.0	6.9	18.3	21.6	0.0	0.0
OTHER ASIA AND OCEANIA:	112.0	194.6	1513.4	928.1	0.0	0.0
HONG KONG	100.3	93.7	1068.7	732.1	0.0	0.0
INDONESIA	0.0	7.2	76.2	0.0	0.0	0.0
KOR REP	3.2	87.6	218.0	151.5	0.0	0.0
THAILAND	8.5	6.1	150.5	44.5	0.0	0.0
WESTERN HEMISPHERE	44.3	50.7	185.9	179.7	0.0	0.0
DOM REP	7.2	15.8	57.6	45.3	0.0	0.0
MEXICO	37.1	34.9	128.3	134.4	0.0	0.0
TOTAL KNOWN	264.3	491.2	3076.6	2534.2	0.0	0.0
TOTAL UNKNOWN	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	264.3	491.2	3076.6	2534.2	0.0	0.0
EXPORTS FOR OWN ACCT	-	-	0.0	0.0	-	-
OPTIONAL ORIGIN	0.0	0.0	-	-	0.0	0.0

CATTLE WET BLUES-GRAIN SPLITS (WHOLE OR SIDED) MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 NUMBER AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	:OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	:THIS WEEK:	YR AGO:	THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
EUROPEAN UNION - 25	: 11.1	31.1	40.4	90.1	0.0	0.0
ESTONIA	: 0.0	0.0	*	0.0	0.0	0.0
GERMANY	: 0.0	0.0	2.7	5.2	0.0	0.0
ITALY	: 9.8	14.4	23.0	48.1	0.0	0.0
NETHLDS	: 0.0	0.0	0.9	0.0	0.0	0.0
PORTUGL	: 1.3	9.7	5.4	9.6	0.0	0.0
SPAIN	: 0.0	7.1	8.4	27.2	0.0	0.0
JAPAN	: 17.1	12.6	36.5	22.7	0.0	0.0
TAIWAN	: 0.0	0.0	57.5	28.7	0.0	0.0
CHINA	: 0.0	0.0	21.2	3.2	0.0	0.0
INDIA	: 0.0	4.4	1.5	5.3	0.0	0.0
OTHER ASIA AND OCEANIA:	106.8	62.0	168.1	214.5	0.0	0.0
HG KONG	: 18.6	21.6	71.5	26.1	0.0	0.0
KOR REP	: 88.2	40.3	72.7	184.8	0.0	0.0
PAKISTN	: 0.0	0.0	*	0.0	0.0	0.0
THAILND	: 0.0	0.0	23.8	3.6	0.0	0.0
AFRICA	: 0.0	0.0	1.7	0.0	0.0	0.0
REP SAF	: 0.0	0.0	1.7	0.0	0.0	0.0
TUNISIA	: 0.0	0.0	*	0.0	0.0	0.0
WESTERN HEMISPHERE	: 34.8	16.9	193.3	195.1	0.0	0.0
BRAZIL	: 0.0	0.0	2.5	0.0	0.0	0.0
C RICA	: 0.0	0.0	7.8	21.2	0.0	0.0
CANADA	: 1.3	1.8	7.9	11.6	0.0	0.0
DOM REP	: 16.2	0.0	20.5	8.5	0.0	0.0
MEXICO	: 17.3	15.1	154.5	153.9	0.0	0.0
TOTAL KNOWN	: 169.7	127.0	520.0	559.5	0.0	0.0
TOTAL UNKNOWN	: 0.0	0.0	0.0	0.0	0.0	0.0
TOTAL KNOWN & UNKNOWN	: 169.7	127.0	520.0	559.5	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

CATTLE WET BLUES-SPLITS-EXCLUDING GRAIN SPLITS MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 POUNDS AS OF AUGUST 26, 2004

		CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
		OUTSTANDING SALES		ACCUMULATED EXPORTS		OUTSTANDING SALES	
DESTINATION		THIS WEEK	YR AGO	THIS WEEK	YR AGO	SECOND YR	THIRD YR
EUROPEAN UNION - 25		1510.6	1937.0	10274.8	12562.9	0.0	0.0
ITALY		1510.6	1387.0	10142.2	12520.0	0.0	0.0
SPAIN		0.0	550.0	132.6	42.9	0.0	0.0
TAIWAN		514.0	59.3	1833.7	889.7	0.0	0.0
CHINA		4564.7	1769.0	7886.8	3225.4	0.0	0.0

CATTLE WET BLUES-SPLITS-EXCLUDING GRAIN SPLITS MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 POUNDS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR	
	OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES					
DESTINATION	:THIS WEEK:	YR AGO:	:THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR
INDIA	: 0.0	0.0	22.4	22.1	0.0	0.0
:						
OTHER ASIA AND OCEANIA:	5091.8	15508.5	23649.1	31942.3	0.0	0.0
HG KONG	: 4676.8	13271.5	22157.3	24646.0	0.0	0.0
INDNSIA	: 100.0	0.0	381.8	1058.5	0.0	0.0
KOR REP	: 315.0	2237.0	1110.0	6069.8	0.0	0.0
THAILND	: 0.0	0.0	0.0	168.0	0.0	0.0
:						
WESTERN HEMISPHERE	: 1300.1	920.0	11505.9	4153.5	0.0	0.0
CANADA	: 0.0	232.0	0.0	0.0	0.0	0.0
COLOMB	: 0.0	0.0	0.0	294.0	0.0	0.0
DOM REP	: 0.0	0.0	43.0	0.0	0.0	0.0
MEXICO	: 1300.1	688.0	11425.6	3859.5	0.0	0.0
SALVADR	: 0.0	0.0	37.3	0.0	0.0	0.0
:						
TOTAL KNOWN	: 12981.2	20193.8	55172.7	52795.9	0.0	0.0
TOTAL UNKNOWN	: 0.0	0.0	0.0	0.0	0.0	0.0
:						
TOTAL KNOWN & UNKNOWN	: 12981.2	20193.8	55172.7	52795.9	0.0	0.0
EXPORTS FOR OWN ACCT	: -	-	0.0	0.0	-	-
OPTIONAL ORIGIN	: 0.0	0.0	-	-	0.0	0.0

FRESH, CHILLED, OR FROZEN MUSCLE CUTS OF BEEF MARKETING YEAR 01/01 - 12/31
 OUTSTANDING EXPORT SALES AND EXPORTS BY COUNTRY, REGION AND MARKETING YEAR
 1000 METRIC TONS AS OF AUGUST 26, 2004

	CURRENT MARKETING YEAR				NEXT MARKETING YEAR		
	:OUTSTANDING SALES:ACCUMULATED EXPORTS: OUTSTANDING SALES						
DESTINATION	:THIS WEEK:	YR AGO:	:THIS WEEK:	YR AGO	:SECOND YR:	THIRD YR	
EUROPEAN UNION - 25	:	*	*	0.5	0.4	0.0	0.0
DENMARK	:	0.0	0.0	*	*	0.0	0.0
FINLAND	:	0.0	0.0	*	0.1	0.0	0.0
FRANCE	:	0.0	0.0	*	*	0.0	0.0
GERMANY	:	0.0	0.0	0.3	0.1	0.0	0.0
GREECE	:	0.0	0.0	*	*	0.0	0.0
ITALY	:	*	*	0.1	*	0.0	0.0
MALTA	:	0.0	0.0	*	0.0	0.0	0.0
NETHLDS	:	*	*	*	*	0.0	0.0
POLAND	:	0.0	0.0	*	*	0.0	0.0
PORTUGL	:	0.0	0.0	*	0.0	0.0	0.0
SPAIN	:	0.0	0.0	*	0.1	0.0	0.0
SWEDEN	:	0.0	0.0	*	0.0	0.0	0.0
U KING	:	0.0	0.0	*	0.0	0.0	0.0
OTHER EUROPE	:	*	*	0.3	0.3	0.0	0.0
BULGAR	:	*	0.0	0.2	0.0	0.0	0.0
ICELAND	:	0.0	*	*	*	0.0	0.0
NORWAY	:	0.0	0.0	*	*	0.0	0.0
ROMANIA	:	0.0	0.0	0.0	0.1	0.0	0.0
SWITZLD	:	0.0	0.0	0.1	0.2	0.0	0.0
TURKEY	:	0.0	0.0	0.0	*	0.0	0.0
FORMER SOVIET UNION-12:	0.0	0.1	0.1	0.4	0.0	0.0	0.0
GEORGIA	:	0.0	0.0	0.1	0.0	0.0	0.0
MOLDOVA	:	0.0	0.0	*	0.0	0.0	0.0
RUSSIA	:	0.0	0.1	*	0.4	0.0	0.0

and plant costs. During the revision to Plant 201 for adding the improved Fischer-Tropsch catalyst recovery procedure using the Kerr-McGee ROSE unit, some of these values got slightly askew and required minor adjustments. All three models now are in excellent agreement with the final plant designs.

Figure 3-2 shows the Management Summary Report generated by the ASPEN process simulation model for the baseline design case. The major input and output streams for the entire complex are summarized at the top of the page. The next section summarizes the plant design, and shows the number of operating and spare plants, their operator requirements, and their ISBL and total installed costs. The total installed cost includes an apportioned share of the OSBL costs not associated with any specific ISBL plant, such as the costs associated with site development, tankage, fire protection, electrical distribution, waste water treatment, home office, fees and contingency. The annual catalyst and chemicals consumptions and total operating labor requirements are shown at the bottom of the page.

Figures 3-3 and 3-4 present the Management Summary Reports generated by the ASPEN process simulation models for the alternate refining and Western coal cases, respectively.

3.3 LOTUS SPREADSHEET ECONOMICS MODEL

The LOTUS spreadsheet economics model was enhanced to provide the user with more flexibility in relating the values of the purchased butanes and liquid propane, gasoline and diesel products to the reference crude oil price. Previously the purchased butanes and liquid propane product prices were set as fixed values in the base year and changed with time in the same manner as the price of the reference crude oil changed. The gasoline and diesel product prices could either be set as a fixed ratio to the reference crude oil price, or as fixed values in the base year and changed with time in the same manner as the price of the reference crude oil changed. Now, in addition, these four items can be related to the reference crude oil price by a constant delta to reflect constant processing costs. This enhancement provides the user with additional flexibility to study the effects of various economic scenarios on the economics of indirect coal liquefaction.

Table 3-1
Plant 201 Summary Report for the Baseline Design Case

PLANT 201 - SUMMARY REPORT/FISCHER-TROPSCH SYNTHESIS REACTORS

REACTOR COMPONENT	FLOW RATES, MLBS/HR		MOLE WT	AVERAGE BP, F	API GRAVITY
COMPONENT	INLET	OUTLET			
H2	94.230	27.817			
N2	96.363	96.363			
O2	.000	.000			
CO	2831.798	371.356			
CO2	260.405	2377.346			
H2O	199.741	40.142			
CH4	7.412	22.830			
C2H4	.000	11.024			
C2H6	.000	2.954			
C3H6	.000	14.671			
C3H8	.000	2.713			
IC4H8	.000	.764			
NC4H8	.000	14.502			
IC4H10	.000	.198			
NC4H10	.000	3.756			
C5H10	.000	14.833			
NC5H12	.000	4.578			
IC5H12	.000	.508			
C6H12	.000	14.776			
NC6H14	.000	4.539			
IC6H14	.000	.504			
C7H14	.000	13.339			
C7H16	.000	5.834			
C8H16	.000	12.650			
C8H18	.000	5.319			
C9H18	.000	11.807			
C9H20	.000	5.141			
C10H20	.000	10.883			
C10H22	.000	4.731			
C11H22	.000	9.930			
C11H24	.000	4.311			
C12H24	.000	8.985			
C12H26	.000	3.897			
C13H26	.000	8.073			
C13H28	.000	3.498			
C14H28	.000	7.211			
C14H30	.000	3.122			
C15H30	.000	6.407			
C15H32	.000	2.772			
C16H32	.000	5.668			
C16H34	.000	2.451			
C17H34	.000	4.994			
C17H36	.000	2.158			
C18H36	.000	4.385			
C18H38	.000	1.894			
C19H38	.000	3.838			
C19H40	.000	1.658			
WAX	.000	284.757	617.819	1032.0	38.65
OXVAP	.000	2.221	50.921		
OXHC	.000	14.360	86.240		
OXR2O	.000	7.283	45.556		
TOTAL	3489.950	3489.950			
TEMPERATURE, F	362.7	487.6			
PRESSURE, PSIA	325.0	304.0			

Table 3-1 (Continued)

PLANT 201 - SUMMARY REPORT
FISCHER-TROPSCH SYNTHESIS REACTORS
(CONTINUED)

F-T REACTOR CONVERSIONS:

HYDROGEN CONVERSION	70.48
CARBON MONOXIDE CONVERSION	86.89
SYNGAS CONVERSION	81.70

FISCHER-TROPSCH SLURRY BED REACTOR DESIGN

NUMBER OF F-T PLANT TRAINS =	8
NUMBER OF F-T REACTORS/TRAIN =	3
NUMBER OF SPARE F-T REACTORS =	1

THE FOLLOWING VALUES ARE FOR 1 OF 24 OPERATING F-T SLURRY BED REACTORS.

AVERAGE REACTOR TEMPERATURE, F	487.6
AVERAGE REACTOR PRESSURE, PSIA	315.0
REACTOR INSIDE DIAMETER, FT	16.35
EXPANDED SLURRY BED HEIGHT ABOVE BOTTOM TANGENT LINE, FT	51.79
SUPERFICIAL GAS VELOCITY, CM/SEC	10.000
RELATIVE CATALYST ACTIVITY	1.000
CATALYST LOADING, MLBS	94.820
CATALYST CONCENTRATION, WT%	22.5
NUMBER OF STEAM TUBES	1458.
TOTAL REACTOR WEIGHT, MLBS	619.618
F-T REACTOR VESSEL COST, MMS	2.070

COMPLETE REACTOR DESIGN INFORMATION IS GIVEN IN THE HISTORY FILE.

PLANT UTILITIES CONSUMPTIONS

POWER, KW	6958.
900 PSIG/1000 F STEAM, MLBS/HR	.0
360 PSIG/440 F STEAM, MLBS/HR	-3273.0
600 PSIG/650 F STEAM, MLBS/HR	33.0
600 PSIG SATD STEAM, MLBS/HR	.0
150 PSIG SATD STEAM, MLBS/HR	.0
50 PSIG SATD STEAM, MLBS/HR	-8.0
PLANT FUEL, MM BTUS/HR	150.00
COOLING WATER, MGAL/HR	125.52
PROCESS WATER, MGAL/HR	14.29
NITROGEN, MM SCF/HR OF N2	.00

TOTAL PLANT OPERATORS/DAY	43.0
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PLANT COSTING INFORMATION

TOTAL NUMBER OF DUPLICATE TRAINS	8
MAXIMUM SIZE, MM SCF/HR	8.053
MINIMUM SIZE, MM SCF/HR	2.690

	TOTAL	FIRST	SUBSEQUENT
NUMBER OF F-T REACTORS	25	4	3
CAPACITY, MM SCF/HR	64.040	8.005	8.005
PLANT ISBL FIELD COST, MMS	219.919	32.803	26.731

THE FIRST TRAIN COST INCLUDES THE COST OF 1 SPARE REACTOR(S).

Table 3-1 (Continued)

EQUIPMENT SUMMARY
Plant 201 - Fischer-Tropsch Synthesis Plant

This plant has 8 parallel trains with 3 F-T slurry reactors/train and 1 spare F-T reactor(s).

Reactors and Vessels

Item No.	Equipment Description	No.	Length (T-T, ft)	Diameter (ID, ft)
201C-1	Syngas Humidifier	1	13.0	11.7
201C-2	Steam Drum	25	30.5	10.0
201C-3	Fischer-Tropsch Slurry Reactor	25	*	*
201C-4	Hydroclone Underflow Drum	25	8.0	3.0
201C-5	Shutdown Wax/Catalyst Storage	3	35.5	17.7
201C-6	F-T Vapor 3-Phase Separator	3	30.0	10.0
201C-7	Vapor Oxygenates Wash Column	8	44.7	6.5
201C-8	High Temp F-T Liquid Separator	8	11.5	3.5
201C-9	Low Temp F-T Liquid Separator	8	7.5	2.5
201C-11	Catalyst Pretreater	1	25.0	12.0
201C-12	Pretreated Catalyst Feed Tank	1	25.0	12.0
201C-13	Catalyst Pretreater OH KO Drum	1	8.0	4.0
201C-15	Spent Catalyst Wash Tank	1	8.0	4.0

* See the results of the detailed F-T slurry reactor calculations.

Heat Exchangers

Item No.	Equipment Description	No.	Duty (MM BTU/hr)	Type of Exchanger
201E-1	Used Catalyst/Wax Slurry Heater	3	14.3	Shell & Tube
201E-2	F-T Vapor Trim Cooler	8	2.7	Shell & Tube
201E-3	F-T Vapor Air Cooler	8	35.7	Air-Fin
201E-4	Low Temp Separator Feed Cooler	8	.2	Shell & Tube
201E-5	Wax Heater	1	13.6	Shell & Tube
201E-6	Catalyst Pretreater OH Cooler	1	7.5	Shell & Tube
201E-7	Pretreater Feed/Effluent Exchng	1	5.7	Shell & Tube

Fired Heaters

Item No.	Equipment Description	No.	Duty (MM BTU/hr)
201F-1	Pretreater Circulation Gas Heater	1	4.8

Table 3-1 (Continued)

EQUIPMENT SUMMARY (Continued)
Plant 201 - Fischer-Tropsch Synthesis Plant

This plant has 6 parallel trains with 3 F-T slurry reactors/train and 1 spare F-T reactor(s).

Compressors

Item No.	Equipment Description	No.	Flow Rate (ACFM)	Brake Horsepower
201K-1	Pretreater Circulation Gas Compr	1	1390.	450.

Pumps

Item No.	Equipment Description	No.	Flow Rate (GPM)	Brake Horsepower
201G-1	Humidifier Water	2	280.0	7.0
201G-2	F-T Reactor Boiler Feed Water	50	3266.8	136.0
201G-3	Hydroclone Underflow	50	7.0	2.0
201G-4	Catalyst/Wax Slurry Transfer	16	225.0	18.5
201G-5	Wax Transfer	6	225.0	8.3
201G-6	F-T Liquid Separator Bottoms	16	1.0	.5
201G-8	Wax Pretreater Feed	2	200.0	38.9
201G-9	Pretreater Liquid	2	10.0	10.0
201G-10	Makeup Catalyst Feed	2	80.0	22.6
201G-11	Oxygenates Water Wash Column	2	30.0	3.4
201G-13	Spent Catalyst Slurry	2	43.0	3.0

Special Equipment

Item No.	Equipment Description	No.	Comments
201T-1	Cyclone Separator	25	2.0 ft ID x 3.5 ft T-T
201T-2	Hydroclone	25	56.0 GPM
201T-4	Kerr-McGee ROSE Unit	1	35.0 MBPSD
201T-5	Makeup Cat Feed Hopper Baghouse	1	30.0 sq ft Cloth Area
201T-6	Makeup Catalyst Feed Hopper	1	22.0 ft ID x 44.0 ft
201T-7	Catalyst Pretreater Baghouse	1	30.0 sq ft Cloth Area
201T-8	Spent Catalyst Filter	2	39.0 GPM
201T-9	Holo-Flite Drier System	1	3699.8 Lbs/hr

The above is based on a proration of the baseline plant design. For either very small or very large capacity plants, the user may wish to adjust the number of spare items or the amount of parallel capacity in some plant sections.

Table 3-2
Management Summary Report for the Baseline Design Case

MANAGEMENT SUMMARY REPORT

MAJOR INPUT AND OUTPUT STREAMS

INPUT	MLBS/HR	TONS/DAY	
ROM COAL*	1547.933	18575.	
NATURAL GAS, MM SCF/HR			.000
ELECTRIC POWER, MEGA-WH/SD			1304.522
RAW WATER MAKE-UP, MM GAL/SD			14.460
OUTPUT	MLBS/HR	TONS/DAY	BBL/DAY
PROPANE	14.241	171.	1923.
BUTANES	-26.514	-318.	-3121.
GASOLINE	251.845	3022.	23952.
DIESEL	278.500	3342.	24681.
REFUSE*	.000	0.	
SLAG*	187.033	2244.	
SULFUR	46.689	560.	
TOTAL	751.794	9022.	47436.

* THESE STREAM FLOW RATES ARE ON A DRY BASIS.
 NEGATIVE PRODUCT FLOWS DESIGNATE PURCHASED MATERIAL.

ISBL FIELD AND TOTAL INSTALLED COSTS (INCLUDING OSBL COSTS)

PLANT	NUMBER OF PLANTS		PLANT COST, MMS.		DEDICATED OPERATORS
	OPERATING	SPARES	ISBL	TOTAL	
101	1	0	41.997	63.540	12
102	5	1	101.271	153.219	17
103	8	1	702.888	1063.440	183
104	8	0	37.968	57.444	8
105	1	0	3.213	4.861	0
106	4	0	18.654	28.223	9
107	2	1	43.367	65.613	13
108	8	0	23.731	35.904	0
109	8	0	7.543	11.412	8
110	8	0	326.750	494.358	8
201	8	0	219.919	332.728	43
202A	8	0	16.800	25.418	0
202B	8	0	124.687	188.646	8
203	4	0	17.861	27.023	4
204	4	0	53.677	81.211	4
205	4	0	44.355	67.107	4
206	4	0	21.896	33.128	4
301	1	0	43.559	65.903	10
302	1	0	13.992	21.169	4
303	1	0	6.593	9.975	4
304	1	0	31.360	47.446	10
305	1	0	6.739	10.196	4
306	1	0	7.273	11.004	4
307	1	0	37.095	56.123	10
308	1	0	5.581	8.444	4
TOTAL			1958.769	2963.534	375

CATALYST AND CHEMICALS, MMS/YEAR 31.070

DEDICATED PLANT OPERATORS 375
 EXTRA OPERATORS, FOREMEN
 AND MAINTENANCE WORKERS 713
 TOTAL 1088

Table 3-3
Management Summary Report for the Alternate Refining Case

MANAGEMENT SUMMARY REPORT

MAJOR INPUT AND OUTPUT STREAMS

INPUT	MLBS/HR	TONS/DAY	
ROM COAL*	1547.933	18575.	
NATURAL GAS, MM SCF/HR			.000
ELECTRIC POWER, MEGA-WH/SD			1194.779
RAW WATER MAKE-UP, MM GAL/SD			14.460
OUTPUT	MLBS/HR	TONS/DAY	SBL/DAY
PROPANE	18.579	223.	2509.
BUTANES	7.529	90.	886.
GASOLINE	314.959	3780.	30317.
DIESEL	191.096	2293.	16820.
REFUSE*	.000	0.	
SLAG*	187.033	2244.	
SULFUR	46.689	560.	
TOTAL	765.886	9191.	50533.

* THESE STREAM FLOW RATES ARE ON A DRY BASIS.

NEGATIVE PRODUCT FLOWS DESIGNATE PURCHASED MATERIAL.

ISBL FIELD AND TOTAL INSTALLED COSTS (INCLUDING OSBL COSTS)

PLANT	NUMBER OF PLANTS		PLANT COST, MMS,		DEDICATED OPERATORS
	OPERATING	SPARES	ISBL	TOTAL	
101	1	0	41.997	63.845	12
102	5	1	101.271	153.954	17
103	8	1	702.888	1068.542	183
104	8	0	37.968	57.720	8
105	1	0	3.213	4.884	0
106	4	0	18.654	28.358	9
107	2	1	43.367	65.927	13
108	8	0	23.731	36.076	0
109	8	0	7.543	11.467	8
110	8	0	326.353	496.128	8
201	8	0	216.659	329.369	43
202A	8	0	16.814	25.561	0
202B	8	0	124.584	189.394	8
203	4	0	17.836	27.115	4
204	4	0	53.417	81.205	4
205	4	0	34.860	52.994	4
206	4	0	21.027	31.966	4
207	8	0	23.260	35.360	0
301	1	0	43.998	66.887	10
305	1	0	3.280	4.986	4
307	1	0	40.522	61.602	10
308	1	0	5.072	7.711	4
TOTAL			1908.314	2901.052	353

CATALYST AND CHEMICALS, MMS/YEAR 30.700

DEDICATED PLANT OPERATORS 353
 EXTRA OPERATORS, FOREMEN
 AND MAINTENANCE WORKERS 671
 TOTAL 1024

Table 3-4
Management Summary Report for the Western Coal Case

MANAGEMENT SUMMARY REPORT

MAJOR INPUT AND OUTPUT STREAMS

INPUT	MLBS/HR	TONS/DAY	
ROM COAL*	1649.072	19789.	
NATURAL GAS, MM SCF/HR			.000
ELECTRIC POWER, MEGA-WH/SD			2112.215
RAW WATER MAKE-UP, MM GAL/SD			9.804
OUTPUT	MLBS/HR	TONS/DAY	SBL/DAY
PROPANE	14.131	170.	1909.
BUTANES	-26.426	-317.	-3110.
GASOLINE	249.862	2998.	23764.
DIESEL	276.026	3312.	24461.
REFUSE*	.000	0.	
SLAG*	145.584	1747.	
SULFUR	9.029	108.	
TOTAL	668.206	8018.	47024.

* THESE STREAM FLOW RATES ARE ON A DRY BASIS.
NEGATIVE PRODUCT FLOWS DESIGNATE PURCHASED MATERIAL.

ISBL FIELD AND TOTAL INSTALLED COSTS (INCLUDING OSEL COSTS)

PLANT	NUMBER OF PLANTS		PLANT COST, MMS		DEDICATED OPERATORS
	OPERATING	SPARES	ISBL	TOTAL	
101	1	0	47.690	73.889	12
102	6	1	128.980	199.837	20
103	9	1	735.660	1139.806	205
105	1	0	5.370	8.320	0
106	4	0	166.000	257.195	25
107	2	1	14.980	23.209	13
108	8	0	21.610	33.482	0
109	9	0	6.620	10.257	9
110	9	0	306.550	474.958	9
201	8	0	204.740	317.217	43
202A	8	0	17.319	26.833	0
202B	8	0	111.221	172.322	8
203	4	0	15.920	24.666	4
204	4	0	47.880	74.184	4
205	4	0	42.200	65.383	4
206	4	0	18.940	29.345	4
301	1	0	40.460	62.687	10
302	1	0	13.100	20.297	4
303	1	0	6.080	9.420	4
304	1	0	29.430	45.596	10
305	1	0	6.170	9.560	4
306	1	0	6.690	10.365	4
307	1	0	33.510	51.919	10
308	1	0	5.210	8.072	4
TOTAL			2032.330	3148.821	410

CATALYST AND CHEMICALS, MMS/YEAR 21.320

DEDICATED PLANT OPERATORS 410
EXTRA OPERATORS, FOREMEN
AND MAINTENANCE WORKERS 780
TOTAL 1190

Section 4

Task 5 - Sensitivity Studies Using PFS Model

The sensitivity studies were conducted using the ASPEN process simulation model for the Baseline design, i.e., Illinois No. 6 coal case with conventional refining.

The ASPEN model generates a file for direct transfer of the significant model results to the discounted cash flow (DCF) spreadsheet economics model. The spreadsheet model takes this input and uses the financial assumptions shown in Table 4-1 to calculate the cost of production and a crude oil equivalent price (COE) for a 15% return on investment.

F-T product values were generated by a linear programming model of a typical PADD II refinery at present day crude oil prices. This work was performed by John Marano of Burns and Roe Services Corporation. Table 4-2 summarizes the results of this product valuation study, showing that the F-T derived gasoline and distillate blendstocks command a premium over and above their respective petroleum derived products. Under the California Air Resources Board (CARB) Phase II fuel specifications, for example, the F-T gasoline blendstock commands a premium of \$1.37/bbl. The F-T distillate blendstock commands a premium of \$0.39/bbl over the petroleum based low sulfur diesel fuel. These premiums reflect the superior properties of the F-T derived products.

The F-T product values determined under CARB Phase II fuel specifications were used in this study. In calculating the COE, several different assumptions can be used to relate feed and product values to crude oil price. The DCF spreadsheet allows for the use of a constant value, a constant ratio or a constant margin. Since what is desired is the equivalent refinery processing cost to produce the same product, this study uses a constant margin to relate the hydrocarbon products and imported butane prices to the crude oil price. Under the CARB Phase II scenario, the respective margins for F-T gasoline and distillate blendstocks, and butane are 10.07, 7.19 and -3.50 respectively.

Caution should be used in extrapolating COE to future pricing scenarios and drawing conclusions as to when coal liquids will become competitive with equivalent products from crude oil. The COE, as herein defined, is a conceptual tool allowing various yield configurations and coal processing scenarios to be compared as a single number on the basis of present day economics. For this reason, sensitivity study results are expressed in term of a relative COE - i.e., relative to the Baseline design conditions.

4.1 PROCESS VARIABLES INVESTIGATED

The PFS model is designed to handle the effects of the following process variables:

<u>Primary Variables</u>	<u>Range</u>
Coal Feed Rate (dry basis)	5,000 to 50,000 tons/day

F-T Conversion per Pass	50 to 82 wt%
F-T Wax Yield	10 to 75 wt%
F-T Reactor Inlet Superficial Velocity	5 to 20 cm/s
F-T Reactor Catalyst Concentration	20 to 40 wt%

Secondary Variables

H ₂ /CO Ratio	0.36 to 0.7
Heat Transfer Flux	3,000 - 10,000 Btu/hr/ft ²
Flow Regime	Bubble to Churn Turbulent

Baseline conditions are 18,575 tons/day coal feed rate, 82% syngas conversion, 50% wax yield, 10 cm/s superficial velocity and 22.5% slurry concentration. Studies were performed only on the primary variables cited above.

4.2 RESULTS**Effect of Design Plant Capacity**

The effect of plant capacity on the overall F-T facility capital investment is exponential with an average cost-capacity exponent of 0.89 over the range from 7,300 to 47,000 tons/day of dried coal feed. This high an exponent is not surprising since multiple process trains are involved. The Baseline facility was designed for a dry coal feed rate of 18,575 tons/day, and at this rate most plants are at their maximum size with multiple trains. For each processing plant within the F-T facility, given its maximum and minimum train capacities, the PFS model calculates the required number of duplicate trains from its total throughput.

The COE is inversely proportional to capacity and the relative value varies from 1.30 to 0.92 at Baseline conditions over the range of coal feed rates studied as shown in Figure 4-1. The Baseline design was optimized to use maximum process unit capacities. Some incremental economic benefit can be gained by further increasing the total plant capacity, but the overall economics are substantially reduced if the plant capacity decreases.

Effect of Design F-T Syngas Conversion Per Pass

As expected, high conversion per pass is economically favorable. These results are summarized in Table 4-3, and the variation in COE and total plant investment is shown graphically in Figure 4-2. Decreasing the syngas conversion from 82 to 68% at a constant 18,575 tons/day coal feed rate increases total plant investment from \$2,964 to \$3,181 MM, with the main effect being on the F-T synthesis section loop due to increased recycle. The COE increases by about 7%. The L/D of the F-T reactors becomes very small at low

conversion, and the design may become impractical unless other parameters are allowed to change as well.

Effect of Design Wax Yield

The effect of design wax yield (at the Baseline capacity of 18,575 tons/day coal feed rate) was studied over the range of 10 to 75 wt%, obtained by varying F-T reactor temperature from 520 to 468 °F. Results are summarized in Table 4-4. Increasing the wax yield from 10 to 75 wt% reduces the gasoline to distillate production ratio from 2.38 to 0.62. An increase in light olefins production at 10 wt% wax yield requires the purchase of roughly 11,000 bbl/day of butane to make alkylate; whereas the 75 wt% wax yield case is in butane balance.

The optimum wax yield is highly dependent on the price of purchased butane, gasoline and distillate relative to crude oil. The effect of the butane-crude oil price spread is shown in Figure 4-3. Using present day price spread of \$3.50/bbl and the F-T gasoline and distillate premiums determined by linear programming studies, the optimum wax yield appears to fall between 45 to 55 wt%. Lowering the butanes price relative to crude oil drastically alters this trend, and when butanes are priced at more than \$10/Bbl lower than crude oil, the low wax yield case is preferred. This is because, at low wax yield, some 11,000 bbl/day of purchased butane is being converted to alkylate.

The linear programming studies did not actually credit the exceptional high cetane of the F-T distillate product. The premium shown simply credits the low sulfur and nitrogen content. The effect of taking a higher premium on the F-T distillate will favor higher wax yield. It also should be noted that the investment costs cited here are for plants designed for a narrow range of process conditions. To provide for the flexibility to operate over the full range of wax yields would require additional investment, estimated roughly at 5%. A large part of this design allowance for wax yield flexibility is due to the lower syngas conversion per pass which would be experienced at 75 wt% wax yield, because of the lower operating temperature.

Effect of Slurry F-T Reactor Design Variables

Variables such as inlet superficial gas velocity, intrinsic catalyst activity, catalyst life and operating catalyst slurry concentration affect only the F-T reactor system design and cost. The ASPEN model allows the effect of these variables to be studied independently.

The inlet superficial gas velocity was studied in conjunction with slurry concentration. If varied independently, as soon as these variables depart from design, the reactor L/D changes. Increasing superficial velocity, at constant slurry concentration, leads to impractically high L/D ratios which the design and costing algorithms are not equipped to handle accurately. This can be compensated for by increasing the catalyst slurry concentration. Figure 4-4 shows the combination of superficial velocity and slurry concentration necessary to maintain a constant L/D of 3.15 (the Baseline reactor design).

The reactor inside diameter has been kept in the range from 12.5 to 16.5 feet by varying the number of reactors from 48 to 16. The Baseline design, at 10 cm/s superficial velocity and 22.5 wt% slurry concentration, has eight F-T synthesis trains with 3 reactors per train, each reactor being approximately 16 feet ID by 52 feet T-T.

Figure 4-4 also shows the relative COE as a function of the superficial velocity and slurry concentration while maintaining a constant reactor L/D of 3.15. The relative COE is inversely proportional to the inlet superficial gas velocity. The COE reduction results directly from the savings in the F-T reactor cost. The savings from increasing the inlet superficial gas velocity from 5 to 20 cm/s is on the order of \$230 million, which corresponds to a reduction in the COE of about 6%.

Figure 4-5 shows the effect of relative catalyst activity. Again, this parameter had to be studied in conjunction with the inlet gas superficial velocity to maintain a reasonable constant reactor L/D. Increasing the relative catalyst activity decreases the total F-T reactor volume required for a constant syngas conversion. This cost savings translates into a decrease in COE as shown. Catalyst activity alone has a relatively larger effect on COE than slurry concentration since the latter also influences the hydrodynamics and increases the mass transfer resistance in the slurry F-T reactor.

Table 4-1

Baseline Design - Economic Assumptions

Coal cost, \$/metric ton (dry basis)	28.9
LPG price, \$/bbl	12.3
N-butane price, \$/bbl	14.5
Sulfur price, \$/metric ton	88.0
Plant Life, years	25
Depreciation, years	10
Construction period, years	4
Owner's cost, % initial capital	5
Initial equity, %	25
Bank interest rate, %	8
General inflation, %	3
Federal income tax, %	34
State and local taxes, %	0
On stream factor, %	90.8
% plant operation	
First year	100
Second year	100
Third year	100
Labor overhead factor, % salary	40
Maintenance and insurance, % initial capital	1

Table 4-2

Fischer-Tropsch Product Values
(dollars per barrel)

	<u>Scenario I</u> (1990 CAAA)	<u>Scenario II</u> (CARD Phase II)
Crude Oil & Refinery Products		
Crude oil	18.00	18.00
Composite gasoline	26.00	26.70
Conventional diesel fuel	22.70	22.70
Low sulfur diesel fuel	24.80	24.80
F-T Upgraded Products		
F-T gasoline blendstock	27.02	28.07
F-T distillate blendstock	24.90	25.19

Table 4-3

**Sensitivity Study - Illinois No. 6 Coal with Conventional Refining
Effect of Syngas Conversion Per Pass**

	% Syngas Conversion			
	82 *	77	72	69
Overall Facility:				
Gasoline production, Bbl/day	23,950	23,540	23,020	22,600
Distillate production, Bbl/day	24,680	24,330	23,890	23,510
LPG production, Bbl/day	1,920	1,890	1,850	1,810
Change in F-T Liquid Production		-1.6%	-3.7%	-5.5%
Purchased n-butane, Bbl/day	3,120	3,020	2,910	2,800
Purchased Power, MW-hr/day	1,310	790	150	-330
Total Capital, MMS	2964	3038	3120	3181
Change in Area 100 capital	0	+1.0%	+1.2%	+1.3%
Change in Area 200 capital	0	+8.7%	+18.5%	+26.9%
Change in Area 300 capital	0	-1.0%	-2.3%	-3.5%
Change in labor cost	0	+2.7%	+4.2%	+6.4%
F-T Reactor:				
Number of trains	8	9	9	10
Total number of reactors	24	27	27	30
Diameter, ft	16.3	15.9	16.6	16.3
Expanded T-T bed ht., ft	51.8	39.2	30.3	23.5
L/D ratio	3.2	2.5	1.8	1.4
Syngas feed, Nm ³ /hr	1.81x10 ⁶	1.90x10 ⁶	1.99x10 ⁶	2.08x10 ⁶
Avg. Gas Velocity, cm/s	7.7	7.8	8.0	8.1
Space Velocity, Nm ³ /Kg. Cat-hr	1.7	2.2	2.8	3.5

* Baseline Design

Table 4-4

Sensitivity Study - Illinois No. 6 Coal with Conventional Refining
Effect of Wax Yield

	% Wax Yield			
	10	35	50*	75
<u>Overall Facility:</u>				
Gasoline production, Bbl/day	37,920	28,620	23,950	17,690
Diesel production, Bbl/day	15,930	21,840	24,680	28,470
Ratio of gasoline /diesel production	2.38	1.31	0.97	0.62
LPG production, Bbl/day	2,480	2,100	1,920	1,730
Purchased n-butane, Bbl/day	10,810	5,690	3,120	3
Purchased Power, MWh/day	1,080	1,200	1,310	1,380
<u>F-T Gasoline Quality</u>				
C3/C4/C5 alkylates	54%	44%	36%	19%
C5/C6 isomerate	14%	18%	21%	29%
Reformate	32%	38%	43%	52%
<u>F-T Reactor:</u>				
Number of trains	9	9	8	8
Total number of reactors	27	27	24	24
Diameter, ft	16.5	15.7	16.3	16.0
Expanded T-T bed ht., ft	23.7	71.3	51.8	86.2
L/D ratio	1.4	4.5	3.2	5.4
Average Temperature, °F	520	498	487	468
Syngas feed, Nm ³ /hr	1.96x10 ⁶	1.86x10 ⁶	1.81x10 ⁶	1.76x10 ⁶
Total Plant 201 cost, MMS	311	314	333	334

* Baseline Design

Figure 4-1

Effect of Design Plant Capacity

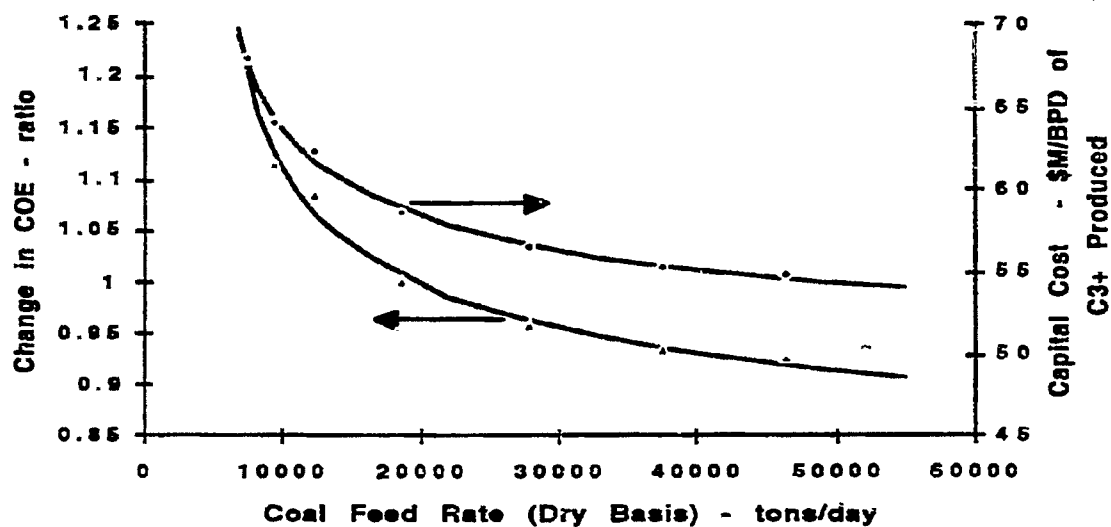


Figure 4-2

Effect of Syngas Conversion per Pass

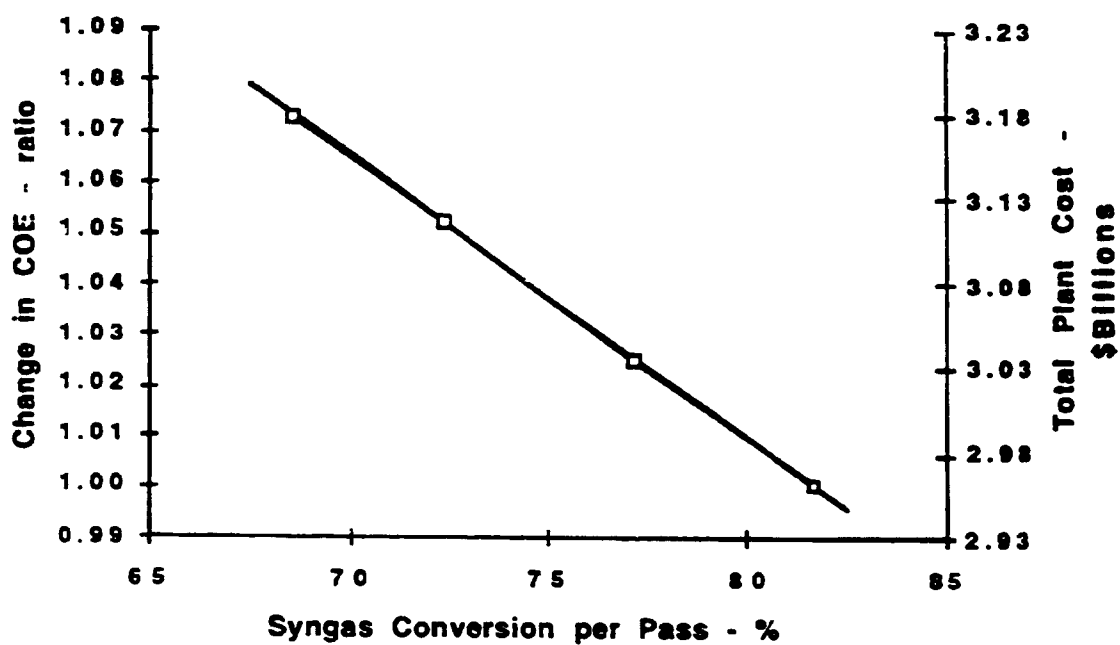


Figure 4-3

Effect of Wax Yield and Butane Price

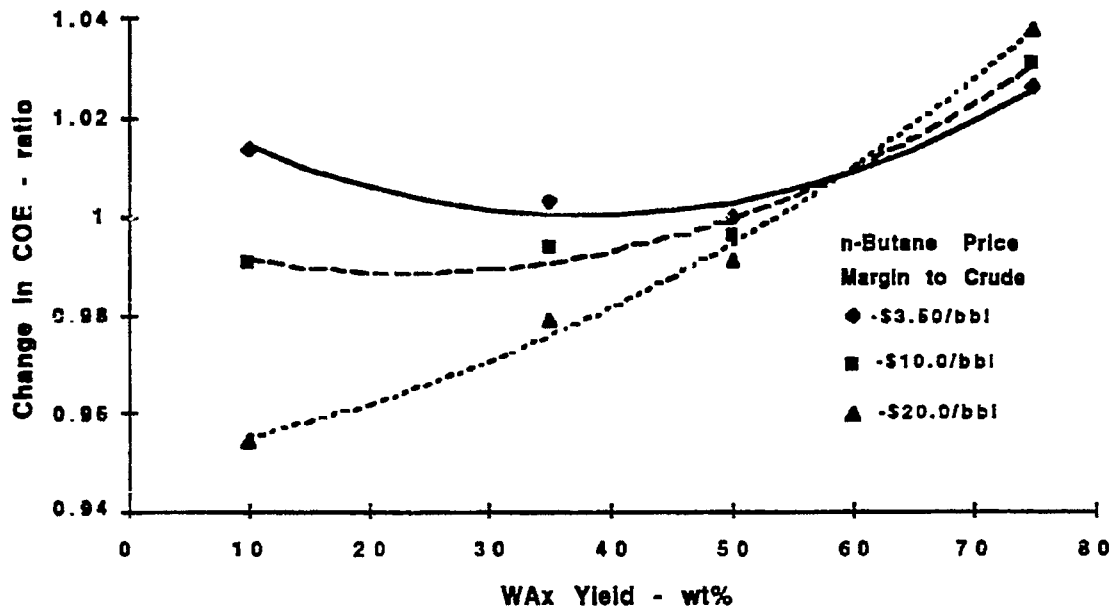


Figure 4-4

Effect of Superficial Gas Velocity & Slurry Concentration
(Constant Reactor L/D of 3.15)

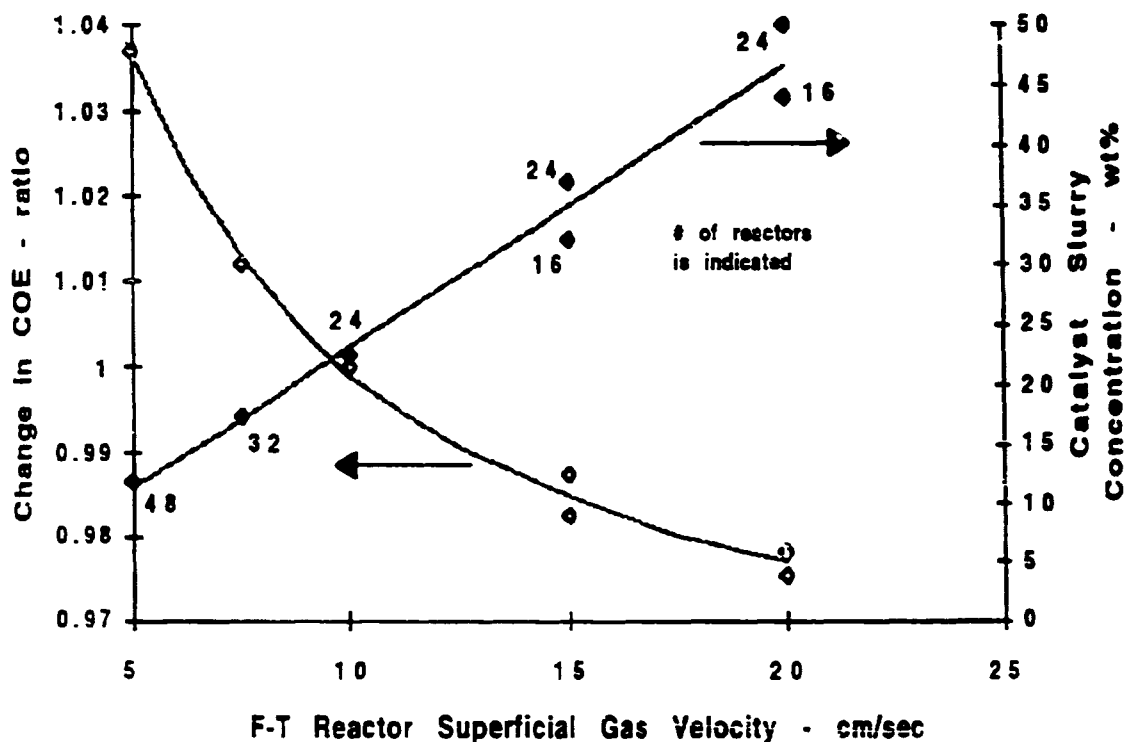
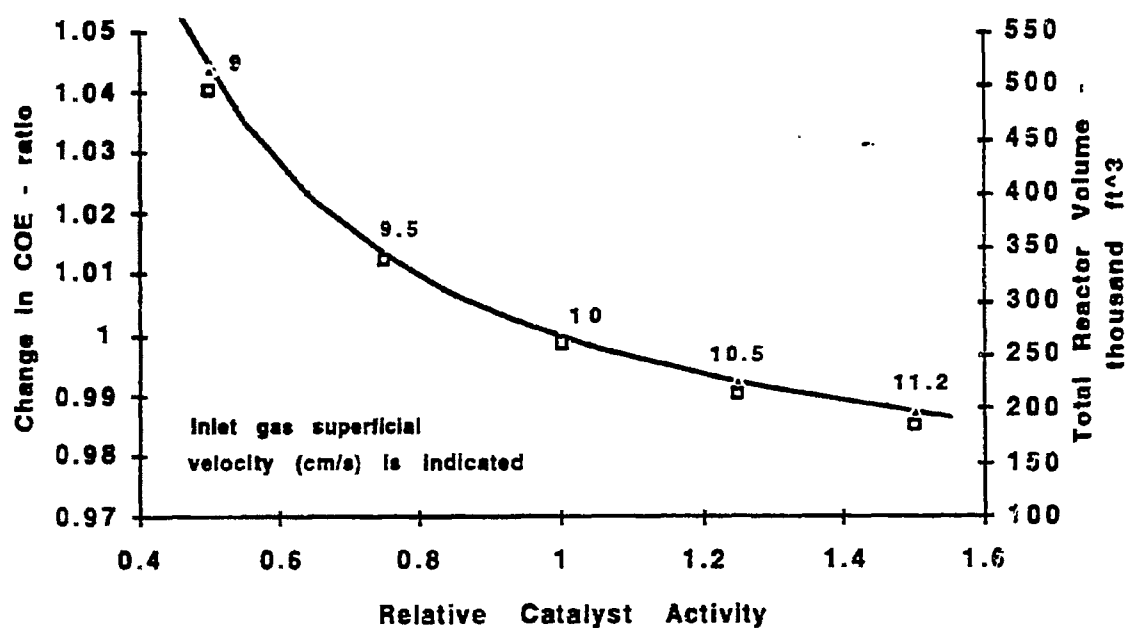


Figure 4-5

Effect of Catalyst Activity & Superficial Gas Velocity
(Constant Reactor L/D of 3.15)



Section 5

Task 6 - ASPEN Simulation Model Documentation

A draft of the Topical Report for Task IV documenting the ASPEN process simulation models has been prepared and submitted to PETC for review. This report documents the three process simulation models, presents and compares their results with the detailed designs, provides users' instructions for running them on ASPEN/SP, and contains an overview of the LOTUS spreadsheet economics model. A separate restricted addendum has been prepared to document the LOTUS spreadsheet economics model.

This draft report documenting the ASPEN process simulation models will be useful to AspenTech during the conversion of the models from ASPEN/SP to ASPEN PLUS. In addition, it will be used during the model training course which will be given to DOE personnel at PETC after the models have been converted to ASPEN PLUS.

Presentations describing the ASPEN process simulation models and LOTUS spreadsheet economics model were prepared for the technical project review meeting on July 1st in San Francisco.

Section 6

Project Management & Staffing Report

6.1 TASK 7 - PROJECT MANAGEMENT

During this reporting period, cost and schedule control was the primary activity.

6.2 KEY PERSONNEL STAFFING REPORT

The key personnel staffing report for this reporting period as required by DOE/PETC is shown below:

Name	Function	% Time Spent^(a)
Bechtel		
Samuel S. Tam	Project Manager	25
Gerald N. Choi	Process Engineer	90
Amoco		
R.D. Kaplan	Subcontract Manager	0
S. S. Kramer	Process Model/Simulation	53

(a) Number of hours spent divided by the total available working hours in the period and expressed as a percentage.

Figure 6-1

Overall Milestone Schedule

(as of June 20, 1994)

DOE FORM 1
(7-84)☐ PLAN ☒ STATUS REPORTFORM APPROVED
OHS NO 1001 1402

1. PROJECT NAME AND ADDRESS Baseline Design/Economics for Advanced Fischer-Tropsch Technology		2. REPORTING PERIOD 5/23/94 to 6/19/94		3. IDENTIFICATION NUMBER DE-AC29-91-P00027											
4. PARTICIPANT NAME AND ADDRESS Bechtel Corporation 50 Beale Street San Francisco, CA 94105		5. START DATE 05/29/91		6. COMPLETION DATE 10/21/94											
ELEMENT CODE	1. REPORTING ELEMENT	2. DURATION												3. PERCENT COMPLETION	
		A	S	O	N	D	J	F	M	A	M	J	J	to 6/19/94	to 10/21/94
Task 1	Baseline Design													100	100
Task 2	Economic Evaluation													100	100
Task 3	Engineering Design Criteria													100	100
Task 4	Process Flowsheet Simulation Model													75	92
Task 5	Sensitivity Studies													88	78
Task 6	Documentation and Training													76	11
Task 7	Project Management & Administration													87	87
△	Completion	③ Baseline case equipment list transmitted to Cost Estimating													
①	Progress meetings														
②	Baseline case design complete														
11. SIGNATURE OF PARTICIPANT'S PROJECT MANAGER AND DATE		Samuel S. Tam 10/5/94													

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