

Table 1. Major Events in Run SB-3115 with 100 Fe/3 Cu/4 K/2 Ca/16 SiO<sub>2</sub> Catalyst  
(batch 3 of Fe-Cu-SiO<sub>2</sub> precursor)

TOS (h)	Event
	Slurry loading: 300 g of Durasyn 164 oil, 7.6 g of catalyst (particle size < 270 mesh)
	Catalyst pretreatment: H <sub>2</sub> , 240°C, 0.78 MPa for 2 h
	Slurry sample withdrawal: 24 g slurry, 0.63 g catalyst
	Wax withdrawal through filter: 5.7 g of wax
0	Initiate synthesis gas flow, achieve process conditions: T = 260°C, P = 1.48 MPa, SV = 1.4 NI/g-cat/h, (H <sub>2</sub> /CO) = 0.67
164	Change process conditions: P = 2.17 MPa, SV = 2.0 NI/g-cat/h
354	Slurry sample withdrawal: 27 g slurry, 0.76 g catalyst
354	End of run: 203 g slurry recovered from the reactor
	Wax and catalyst removed during the run: 200 g wax, 1.4 g catalyst

Table 2. Major Event in Run SA-3155 with 100 Fe/5 Cu/6 K/24 SiO<sub>2</sub> Catalyst  
(batch 5, K from K<sub>2</sub>SiO<sub>3</sub>)

TOS (h)	Event
	Slurry loading: 306 g of Durasyn 164 oil, 9.5 g of catalyst (particle size < 270 mesh)
	Catalyst pretreatment: H <sub>2</sub> , 250°C, 0.78 MPa for 4 h
	Slurry sample withdrawal: 23 g slurry, 0.72 g catalyst
	Wax withdrawal through filter: 24 g of wax
0	Initiate synthesis gas flow, achieve process conditions: T = 260°C, P = 1.48 MPa, SV = 2.2 NI/g-cat/h, (H <sub>2</sub> /CO) = 0.67
42	Change space velocity to: SV = 1.8 NI/g-cat/h
211	Change process conditions: P = 2.17 MPa, SV = 2.2 NI/g-cat/h
235	Change process conditions: P = 2.17 MPa, SV = 1.8 NI/g-cat/h
401	Slurry sample withdrawal: 15 g slurry, 0.62 g catalyst
401	End of run: 190 g slurry recovered from the reactor
	Wax and catalyst removed during the run: 340 g wax, 1.3 g catalyst

Table 3. Major Events in Run SB-3425 with 100 Fe/3 Cu/4 K/16 SiO<sub>2</sub> Catalyst (batch 4)

TOS (h)	Event
	Slurry loading: 311 g of Durasyn 164 oil, 20.0 g of catalyst (particle size < 270 mesh)
	Catalyst pretreatment: H <sub>2</sub> , 250°C, 0.78 MPa for 4 h
	Slurry sample withdrawal: 24 g slurry, 1.5 g catalyst
	Wax withdrawal through filter: 6 g of wax
0	Initiate synthesis gas flow, achieve process conditions: T = 260°C, P = 1.48 MPa, SV = 2.34 NI/g-cat/h, (H <sub>2</sub> /CO) = 0.67
111	Slurry sample withdrawal: 28 g slurry, 1.6 g catalyst
159	Change space velocity to SV = 1.8 NI/g-cat/h
233	Slurry sample withdrawal: 15 g slurry, 0.8 g catalyst
279	Lost power for 30 min, reactor temperature dropped to 200°C
282	Resume synthesis conditions
311	Change feed composition to (H <sub>2</sub> /CO) = 0.60
330	Slurry sample withdrawal: 14 g slurry, 0.8 g catalyst
330	Change space velocity to SV = 1.0 NI/g-cat/h
355	Increase temperature to 266°C
384	Slurry sample withdrawal: 27 g slurry, 1.38 g catalyst
384	End of run: 291 g slurry recovered from the reactor
	Wax and catalyst removed during the run: 696 g wax, 4.6 g catalyst

Table 4. Effects of Calcination Conditions on the Textural Properties of Catalysts B (100 Fe/5 Cu/6 K/24 SiO<sub>2</sub>) and C (100 Fe/3 Cu/4 K/16 SiO<sub>2</sub>)

Calcination Conditions	BET Surface Area (m <sup>2</sup> /g)		Pore Volume cm <sup>3</sup> /g
	Single point	BET plot	
<b>100 Fe/3 Cu/4 K/16 SiO<sub>2</sub>, batch 4 (S3416-4)</b>			
300 °C for 5 hours	310	306	0.45
400 °C for 5 hours	263	268	0.42
500 °C for 5 hours	186	188	0.36
500 °C for 30 minutes	233		
500 °C for 60 minutes	231		
700 °C for 30 minutes	118		
700 °C for 60 minutes	108		
<b>100 Fe/5 Cu/6 K/24 SiO<sub>2</sub>, batch 3 (S5624-3)</b>			
300 °C for 5 hours	258	284	0.51
400 °C for 5 hours	271	253	0.48
500 °C for 5 hours	219	193	0.43