



Certificate of Analysis

Report Date: 9/1/2020

Vessel/Equipment:	Web 241 & 248	File Number:	98697-215				
Shore Tank:	215	Lab Number:	083020-003				
Product:	CSO/MCB	Client:	ExxonMobil				
Terminal:	PFT, Mt. Airy	Client Reference:	4986215				
Subject:	Discharge						
Sample type:	First Foot	Sample Location:	ST 215				
				Spec			
Method	<u>Component</u>	<u>Result</u>	<u>Units</u>	<u>Min</u>	-	<u>Max</u>	Off-Spec

D5705	Hydrogen Sulfide (Vapor Phase)	<5	ppm	-			
D5705	Temperature	140	°F	-			

Sample type:	Composite	Sample Location:		ST 215		
Method	Component	Result	Units	Spec		Off-Spec
				Min	- Max	
D4052	API Gravity at 60°F	-2.2			- -2.5	*
D4294	Sulfur Content	2.89	wt%		- 3.0	
D7042	Viscosity-Kinematic at 122°F	411.8	cST		-	
D2161	Viscosity-SFS at 122°F	194.3	SFS		-	
D2161	Viscosity-SUS at 210°F	98.14	SUS		- 110	
D93B	Flash Point	185	°F	170	-	
D482	Ash Content	0.069	mass%		- 0.08	
D97	Pour Point	15	°C		-	
D97	Pour Point	59.0	°F		-	
IP143	Asphaltenes	2.9	%(m/m)		- 8	
D4530	Micro Carbon Residue Test	9.86	%(m/m)		-	
D473	Sediment by Extraction	0.19	%(m/m)			
D95	Water by Distillation	<0.05	vol%		- 0.20	
D4870	Total Sediment by Hot Filtration	0.17	mass%		-	
IP501	Aluminum	134	ppm		-	
IP501	Silicon	140	ppm		-	
IP501	Vanadium	2.0	ppm		-	
IP501	Sodium	4.0	ppm		-	
IP501M	Potassium	0.9	ppm		-	
D5291	Carbon	89.54	wt%	89	-	
D5291	Hydrogen	7.61	wt%		- 8	
PPCO-7317-BH	BMCI	128.2		125	-	

Signed: Aaron Manguno
Laboratory Supervisor

Reviewed by: Glenn Hanson
VP of Laboratories