

Filter Information		Miscellaneous Information		Product Information	
Filter Type: FULLFLOW & BYPASS Micron Rating: 0		10 qts of 20w 50 Amsoil Dominator Diesel Miscellaneous: oil + 2qts of 15w 40 Redline diesel in oil change.		Product Manufacturer: KENDALL Product Name: SUPER-D XA Viscosity Grade: SAE 15W40	
Comments	OXIDATION is at a SEVERE level. Drain interval may be over-extended or unit may be running too hot. Elevated Oxidation causes acid by-products, deposits, and sludge, and can increase viscosity and wear. Flagged additive levels are different than what should be present for the identified lubricant. This may have been topped off with a different lubricant, the fluid may be misidentified, or a different lubricant or formulation may have been in use prior to a recent change. Is the FLUID MANUFACTURER, PRODUCT NAME and/or VISCOSITY GRADE correctly identified? Base Number is SLIGHTLY LOW. As Base Number depletes, the ability to neutralize acids is diminished. Maintenance action indicated at time of submission (fluid/filter change , filtration, etc.) will have corrected the issue this system is exhibiting. No further maintenance action is recommended at this time.				

	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
# Sample	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
1	11	0	0	1	1	0	0	0	0	0	6	6	1	89	4	0	0	0	96	405	1665	0	927	1082
2	4	0	1	0	0	0	0	0	0	0	7	2	1	93	0	1	0	0	122	411	1657	0	1006	1109
3	6	0	0	0	0	0	0	0	0	0	6	3	3	101	0	0	0	0	124	419	1858	0	1071	1212
4	9	0	0	1	1	0	0	0	0	0	5	3	2	0	15	0	0	0	35	435	1080	0	875	988

# Sample	Sample Information							Contaminants			Fluid Properties					
	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added unk	Filter Change	Fuel Dilution % Vol	Soot % Vol	Water % Vol	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH/g	Base No. D4739 mg KOH/g	Oxidation abs/cm	Nitration abs/0.1mm
1	01-Sep-2018	10-Sep-2018	3616	47616	No	0	No	8.4 - GC	0.4 - E2412	<.1 - FTIR		12.2		4.94	15	9
2	19-Oct-2018	25-Oct-2018	980	48856	Yes	0	Yes	<1 - Estimate	0.2 - E2412	<.1 - FTIR		13.4		5.90	12	7
3	27-Nov-2018	07-Dec-2018	1683	49561	No	0	No	6.9 - GC	0.1 - E2412	<.1 - FTIR		12.8		5.46	12	8
4	30-Jul-2019	07-Aug-2019	8155	61922	Yes	0	Yes	<1 - Estimate	0.3 - E2412	<.1 - FTIR		15.3		5.06	44	10