

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information		Component Information				Sample Information			
Account Number:	[REDACTED]	Component ID: 2020 ECODIESEL E				Tracking Number: 21005Q92724			
Company Name:	[REDACTED]	Secondary ID:				Lab Number: I-396632			
Contact:	[REDACTED]	Component Type: DIESEL ENGINE				Lab Location: Indianapolis			
Address:	[REDACTED]	Manufacturer: VM MOTORI				Data Analyst: MPJ			
Phone Number:	[REDACTED]	Model: 3.0 TURBO				Sampled: 22-Nov-2021			
		Application: AUTOMOTIVE				Received: 07-Dec-2021			
		Sump Capacity: 9 qt				Completed: 09-Dec-2021			
Filter Information		Miscellaneous Information				Product Information			
Filter Type: FULLFLOW						Product Manufacturer: PENNZOIL			
Micron Rating: 0						Product Name: PLATINUM EURO FULL SYNTHETIC			
						Viscosity Grade: SAE 5W40			
Comments	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Aluminum is at a MODERATE LEVEL; ALUMINUM sources in ENGINES include pistons, block and components (intake manifold, head, bearing caps), thrust bearings, main/rod bearing overlay or backing, alumina silica, or contamination from grease. Potassium is at a MINOR LEVEL; Potassium sources: coolant (antifreeze), lube additive or supplement, solder flux, coating on new bearings, rust preventive coating, or environmental. Calcium is slightly high for this lubricant. Lubricant and filter change acknowledged.								

Sample #	Wear Metals (ppm)										Contaminant			Multi-Source Metals (ppm)					Additive Metals (ppm)					
	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	19	1	0	13	14	0	0	0	0	0	36	4	24	0	47	0	5	1	72	21	2505	0	803	920
2	21	1	0	13	7	0	1	0	0	0	13	3	14	0	84	0	2	0	169	887	1703	0	888	1046
3	26	1	0	25	5	0	1	0	0	0	12	1	26	0	60	3	1	1	78	177	2772	0	977	1141

Sample #	Sample Information				Contaminants				Fluid Properties							
	Date Sampled	Date Received	Lube Time	Unit Time	Lube Change	Lube Added	Filter Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100°C	Acid Number	Base No. D4739	Oxidation	Nitration
			mi	mi	Lube Change	qt	Filter Change	%	%	%	cSt	cSt	mg KOH/g	mg KOH/g	abs/cm	abs/0.1mm
1	19-Jun-2021	25-Jun-2021	4133	4133	Yes	9	Yes	0.6 - GC	<.1	<.1 - FTIR		13.0		8.32	9	10
2	19-Jul-2021	23-Jul-2021	3551	7684	Yes	9	Yes	0.1 - GC	<.1	<.1 - FTIR		12.6		9.52	10	10
3	22-Nov-2021	07-Dec-2021	5123	12807	Yes	0	Yes	0.6 - GC	<.1	<.1 - FTIR		12.9		6.84	10	10

Sample #	Particle Count (particles/mL)										Test Method	Additional Testing	
	ISO Code	> 4	> 6	> 10	> 14	> 21	> 38	> 70	> 100				
	Based On 4/6/14	particles/mL	particles/mL	particles/mL	particles/mL	particles/mL	particles/mL	particles/mL	particles/mL	particles/mL			
1	//												
2	//												
3	//												

Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Results relate only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.