

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id VOLVO 26592 Component Diesel Engine Fluid

NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

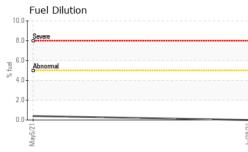
Fluid Condition

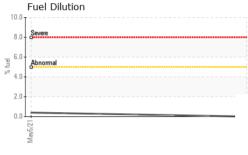
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

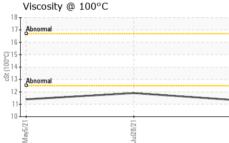
May2021 Jud2021 Feb2022						
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0068371	PCA0038378	PCA0038363
Sample Date		Client Info		24 Feb 2022	28 Jul 2021	05 May 2021
Machine Age	mls	Client Info		472826	401148	361015
Oil Age	mls	Client Info		30000	30000	30000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	29	33	45
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>25	2	0	2
Lead	ppm	ASTM D5185m	>40	1	4	3
Copper	ppm	ASTM D5185m	>330	4	8	10
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method				history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 2	history1 3	history2 8
	ppm ppm		limit/base			
Boron Barium	ppm	ASTM D5185m	limit/base	2	3	8
Boron	ppm ppm	ASTM D5185m ASTM D5185m	limit/base	2 0	3 0	8 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64	3 0 64	8 0 62
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1	3 0 64 <1	8 0 62 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1 977	3 0 64 <1 763	8 0 62 <1 866
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1 977 1220	3 0 64 <1 763 1273	8 0 62 <1 866 1066
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1 977 1220 1050	3 0 64 <1 763 1273 931	8 0 62 <1 866 1066 901
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1 977 1220 1050 1356	3 0 64 <1 763 1273 931 1136	8 0 62 <1 866 1066 901 1179
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1 977 1220 1050 1356 3470	3 0 64 <1 763 1273 931 1136 2257	8 0 62 <1 866 1066 901 1179 1913
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	2 0 64 <1 977 1220 1050 1356 3470 current	3 0 64 <1 763 1273 931 1136 2257 history1	8 0 62 <1 866 1066 901 1179 1913 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	2 0 64 <1 977 1220 1050 1356 3470 current 6	3 0 64 <1 763 1273 931 1136 2257 history1 4	8 0 62 <1 866 1066 901 1179 1913 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >25 >20	2 0 64 <1 977 1220 1050 1356 3470 current 6 9	3 0 64 <1 763 1273 931 1136 2257 history1 4 11	8 0 62 <1 866 1066 901 1179 1913 history2 6 14
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20	2 0 64 <1 977 1220 1050 1356 3470 current 6 9 2	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	limit/base >25 >20 >5	2 0 64 <1 977 1220 1050 1356 3470 current 6 9 2 2 <1.0	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2 <1.0	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >5	2 0 64 <1 977 1220 1050 1356 3470 <i>current</i> 6 9 2 2 <1.0 <i>current</i>	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2 <1.0 history1	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2 0.4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m	limit/base >25 >20 >5 limit/base >3	2 0 64 <1 977 1220 1050 1356 3470 <i>current</i> 6 9 2 <1.0 <i>current</i> 0.5	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2 <1.0 history1 0.7	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2 0.4 0.4 history2 0.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >5 limit/base >3 >20	2 0 64 <1 977 1220 1050 1356 3470 <i>current</i> 6 9 2 <1.0 <i>current</i> 0.5 10.7	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2 <1.0 history1 0.7 10.9	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2 0.4 history2 0.7 11.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >20 >3 Imit/base >3 >3 >30 Imit/base	2 0 64 <1 977 1220 1050 1356 3470 current 6 9 2 <1.0 current 0.5 10.7 22.6 current	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2 <1.0 history1 0.7 10.9 23.6 history1	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2 0.4 history2 0.7 11.6 24.8 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >5 limit/base >3 >20 >3 >30	2 0 64 <1 977 1220 1050 1356 3470 <i>current</i> 6 9 2 <1.0 <i>current</i> 0.5 10.7 22.6	3 0 64 <1 763 1273 931 1136 2257 history1 4 11 2 <1.0 history1 0.7 10.9 23.6	8 0 62 <1 866 1066 901 1179 1913 history2 6 14 2 0.4 history2 0.7 11.6 24.8

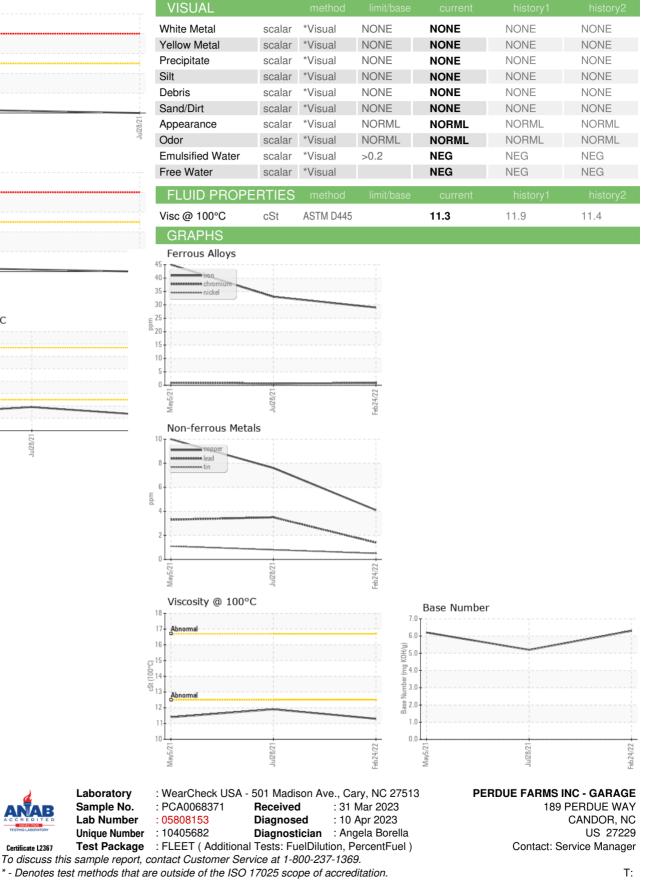


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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Certificate L2367