

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Ise a [886746] Machine Id LCL-9 ENGINE 2 Component

Rear Diesel Engine

PHILLIPS 66 Fleet Supreme EC 15W40 (9 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

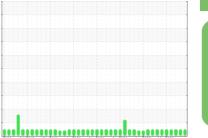
All component wear rates are normal.

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 acceptable for the time in service.

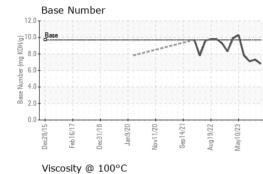


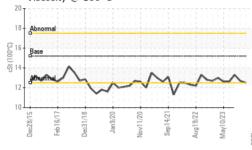


SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0865374	WC0865372	WC0843459
Sample Date		Client Info		03 Jan 2024	08 Nov 2023	12 Sep 2023
Machine Age	hrs	Client Info		4785	4770	4770
Oil Age	hrs	Client Info		0	69	110
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	۷	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	0	2	1
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	3	2	1
Lead	ppm	ASTM D5185m	>40	1	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	0
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
				Ū		0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	-		-
		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base	current 85	history1 93	history2 98
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 85 0	history1 93 12	history2 98 0
Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 85 0 93	history1 93 12 98 <1 28	history2 98 0 89
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 85 0 93 <1	history1 93 12 98 <1	history2 98 0 89 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 85 0 93 <1 34	history1 93 12 98 <1 28 2272 1109	history2 98 0 89 <1 35 2285 1099
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m		current 85 0 93 <1 34 2344 1200 1389	history1 93 12 98 <1 28 2272 1109 1246	history2 98 0 89 <1 35 2285 1099 1258
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1116 1250	current 85 0 93 <1 34 2344 1200	history1 93 12 98 <1 28 2272 1109 1246 3736	history2 98 0 89 <1 35 2285 1099 1258 4796
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1116 1250 limit/base	current 85 0 93 <1 34 2344 1200 1389 4341 current	history1 93 12 98 <1 28 2272 1109 1246 3736 history1	history2 98 0 89 <1 35 2285 1099 1258 4796 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1116 1250 limit/base	current 85 0 93 <1 34 2344 1200 1389 4341 current 3	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1116 1250 limit/base >25	current 85 0 93 <1 34 2344 1200 1389 4341 current 3 2	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	11116 1250 limit/base >25 >20	current 85 0 93 <1 34 2344 1200 1389 4341 current 3	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0 2	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	1116 1250 limit/base >25 >20 limit/base	current 85 0 93 <1 34 2344 1200 1389 4341 current 3 2 <1	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0 2 history1	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3 1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	method ASTM D5185m	11116 1250 limit/base >25 >20 limit/base >3	current 85 0 93 <1 34 2344 1200 1389 4341 current 3 2 <1 current 0 0.1	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0 2 history1 0.1	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3 1 history2 0.1
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Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	method ASTM D5185m	11116 1250 limit/base >25 >20 limit/base >3	current 85 0 93 <1 34 2344 1200 1389 4341 current 3 2 <1 current 0 0.1	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0 2 history1 0.1	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3 1 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	11116 1250 limit/base >25 >20 limit/base >3 >20	current 85 0 93 <1 34 2344 1200 1389 4341 current 3 2 <1 current 0 0.1 7.5	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0 2 history1 0.1 7.4	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3 1 history2 0.1 6.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	1116 1250 imit/base >25 >20 imit/base >3 >20 >30	current 85 0 93 <1 34 2344 1200 1389 4341 current 3 2 <1 current 0 1 0 1 0 0.1 7.5 17.0	history1 93 12 98 <1 28 2272 1109 1246 3736 history1 3 0 2 history1 0.1 7.4 16.6	history2 98 0 89 <1 35 2285 1099 1258 4796 history2 4 3 1 history2 0.1 6.9 16.3



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Contact/Location: Maxime Banctel - TLDNOR