

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 4504L Component Diesel Engine Fluid MOBIL 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

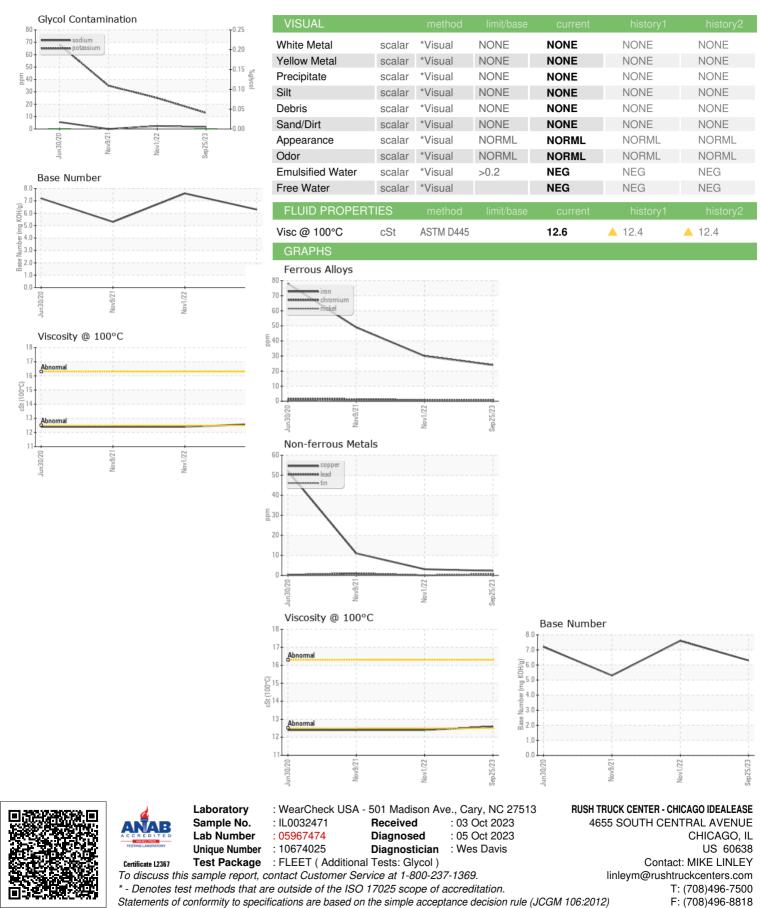
Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0032471	IL0025799	IL0019559
Sample Date		Client Info		25 Sep 2023	01 Nov 2022	09 Nov 2021
Machine Age	mls	Client Info		36916	28975	19850
Oil Age	mls	Client Info		15000	15000	12754
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ATTENTION	ATTENTION
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	2 .9
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	24	30	49
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	24	19	17
Lead	ppm	ASTM D5185m	>40	<1	0	1
Copper	ppm	ASTM D5185m	>330	2	3	11
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base	current 3	history1 16	history2 30
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	3	16	30
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	3 0	16 0	30 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	3 0 59	16 0 52	30 0 42
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	3 0 59 <1	16 0 52 <1	30 0 42 2
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	3 0 59 <1 970	16 0 52 <1 759	30 0 42 2 499
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	3 0 59 <1 970 1091	16 0 52 <1 759 1318	30 0 42 2 499 1809
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	3 0 59 <1 970 1091 970	16 0 52 <1 759 1318 853	30 0 42 2 499 1809 756
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	3 0 59 <1 970 1091 970 1257	16 0 52 <1 759 1318 853 1090	30 0 42 2 499 1809 756 879
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	limit/base	3 0 59 <1 970 1091 970 1257 3138	16 0 52 <1 759 1318 853 1090 3322	30 0 42 2 499 1809 756 879 2134
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	3 0 59 <1 970 1091 970 1257 3138 current	16 0 52 <1 759 1318 853 1090 3322 history1	30 0 42 2 499 1809 756 879 2134 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base	3 0 59 <1 970 1091 970 1257 3138 current 6	16 0 52 <1 759 1318 853 1090 3322 history1 9	30 0 42 2 499 1809 756 879 2134 history2 11
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >25 >118	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2	16 0 52 <1 759 1318 853 1090 3322 history1 9 2	30 0 42 2 499 1809 756 879 2134 history2 11 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >118	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2 13	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 2 25	30 0 42 2 499 1809 756 879 2134 history2 11 0 35
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2 13 0.0	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 25 NEG	30 0 42 2 499 1809 756 879 2134 history2 11 0 35 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D2982	limit/base >25 >118 >20 limit/base >3	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2 13 0.0 <u>current</u> 0.4	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 25 NEG history1	30 0 42 2 499 1809 756 879 2134 history2 11 0 35 NEG history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base >3	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2 13 0.0 <u>current</u>	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 25 NEG history1 0.4	30 0 42 2 499 1809 756 879 2134 history2 11 0 35 NEG history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D2982 method *ASTM D7844 *ASTM D7844	limit/base >25 >118 >20 limit/base >3 >20	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2 13 0.0 <u>current</u> 0.4 10.5	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 25 NEG history1 0.4 12.3	30 0 42 2 499 1809 756 879 2134 history2 11 0 35 NEG history2 0.4 13.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >118 >20 limit/base >3 >20 >30 limit/base	3 0 59 <1 970 1091 970 1257 3138 Current 6 2 13 0.0 Current 0.4 10.5 22.1 Current	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 25 NEG 25 NEG history1 0.4 12.3 25.3	30 0 42 2 499 1809 756 879 2134 history2 11 0 35 NEG history2 0.4 13.1 28.2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >118 >20 limit/base >3 >20 >30	3 0 59 <1 970 1091 970 1257 3138 <u>current</u> 6 2 13 0.0 <u>current</u> 0.4 10.5 22.1	16 0 52 <1 759 1318 853 1090 3322 history1 9 2 25 NEG history1 0.4 12.3 25.3	30 0 42 2 499 1809 756 879 2134 history2 11 0 35 NEG history2 0.4 13.1 28.2



OIL ANALYSIS REPORT



Contact/Location: MIKE LINLEY - IDECHIIL