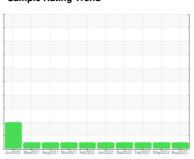


OIL ANALYSIS REPORT

Sample Rating Trend







16825

Component **Diesel Engine**

MOBIL DELVAC 1300 SUPER15W40 (--- QTS)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

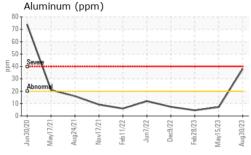
Fluid Condition

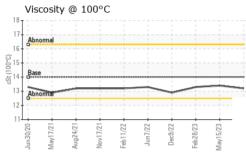
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

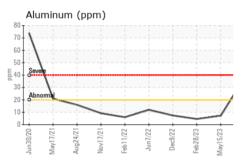
/		Jun2020 May2	2021 Aug2021 Nov2021 Feb2	022 Jun2022 Dec2022 Feb2023 May	2023 Aug2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0027074	IL0027061	IL0027116
Sample Date		Client Info		30 Aug 2023	15 May 2023	28 Feb 2023
Machine Age	mls	Client Info		300234	349098	260958
Oil Age	mls	Client Info		20239	11553	14880
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	20	12	12
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	38	7	5
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	1	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m		current 22	history1 29	history2 41
	ppm		0			
Boron		ASTM D5185m	0	22	29	41
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	22 0	29 0	41
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	22 0 41	29 0 37	41 0 43
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	22 0 41 <1	29 0 37 <1	41 0 43 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	22 0 41 <1 538	29 0 37 <1 641	41 0 43 <1 635
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	22 0 41 <1 538 1564	29 0 37 <1 641 1506	41 0 43 <1 635 1582
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	22 0 41 <1 538 1564 762	29 0 37 <1 641 1506 779	41 0 43 <1 635 1582 844
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 ASTM D5185m	0 0 0	22 0 41 <1 538 1564 762 944	29 0 37 <1 641 1506 779 964	41 0 43 <1 635 1582 844 1006
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0	22 0 41 <1 538 1564 762 944 2918	29 0 37 <1 641 1506 779 964 3021	41 0 43 <1 635 1582 844 1006 3221
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	22 0 41 <1 538 1564 762 944 2918 current	29 0 37 <1 641 1506 779 964 3021 history1	41 0 43 <1 635 1582 844 1006 3221 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	22 0 41 <1 538 1564 762 944 2918 current 6	29 0 37 <1 641 1506 779 964 3021 history1	41 0 43 <1 635 1582 844 1006 3221 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25	22 0 41 <1 538 1564 762 944 2918 current 6 <1	29 0 37 <1 641 1506 779 964 3021 history1 5	41 0 43 <1 635 1582 844 1006 3221 history2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20	22 0 41 <1 538 1564 762 944 2918 current 6 <1 56	29 0 37 <1 641 1506 779 964 3021 history1 5 2 5	41 0 43 <1 635 1582 844 1006 3221 history2 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	22 0 41 <1 538 1564 762 944 2918 current 6 <1 56	29 0 37 <1 641 1506 779 964 3021 history1 5 2 5	41 0 43 <1 635 1582 844 1006 3221 history2 2 2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3 >20	22 0 41 <1 538 1564 762 944 2918 current 6 <1 56 current 0.5	29 0 37 <1 641 1506 779 964 3021 history1 5 2 5 history1 0.4	41 0 43 <1 635 1582 844 1006 3221 history2 2 2 4 history2 0.3
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	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3 >20	22 0 41 <1 538 1564 762 944 2918 current 6 <1 56 current 0.5 9.4	29 0 37 <1 641 1506 779 964 3021 history1 5 2 5 history1 0.4 9.0	41 0 43 <1 635 1582 844 1006 3221 history2 2 2 4 history2 0.3 8.1
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	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30	22 0 41 <1 538 1564 762 944 2918 current 6 <1 56 current 0.5 9.4 21.9	29 0 37 <1 641 1506 779 964 3021 history1 5 2 5 history1 0.4 9.0 21.4	41 0 43 <1 635 1582 844 1006 3221 history2 2 2 4 history2 0.3 8.1 19.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m METHOD *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD *ASTM D7844 *ASTM D7624 *ASTM D7415 METHOD	0 0 0 0 0 limit/base >25 >20 limit/base >3 >20 >30 limit/base	22 0 41 <1 538 1564 762 944 2918 current 6 <1 56 current 0.5 9.4 21.9 current	29 0 37 <1 641 1506 779 964 3021 history1 5 2 5 history1 0.4 9.0 21.4 history1	41 0 43 <1 635 1582 844 1006 3221 history2 2 2 4 history2 10.3 8.1 19.4 history2



OIL ANALYSIS REPORT



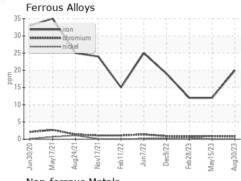


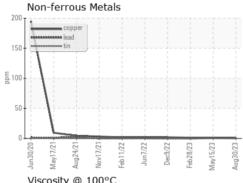


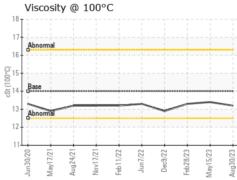
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

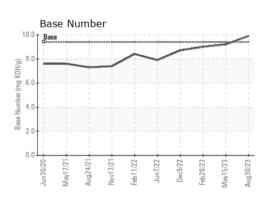
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	14	13.2	13.4	13.3

GRAPHS













Certificate L2367

Laboratory

Sample No. Lab Number Unique Number : 10671599 Test Package : FLEET

: IL0027074 : 05965048

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 29 Sep 2023 Diagnosed : 30 Sep 2023

Diagnostician : Wes Davis

RUSH TRUCK LEASING - EFFINGHAM Idealease 1701 WEST FAYETTE AVENUE EFFINGHAM, IL

US 62401 Contact: JACKIE OHNESORGE

ohnesorgej@rushenterprises.com

T: (217)342-9761 F: (217)342-9642

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: IDEEFF [WUSCAR] 05965048 (Generated: 09/30/2023 04:56:59) Rev: 1

Contact/Location: JACKIE OHNESORGE - IDEEFF