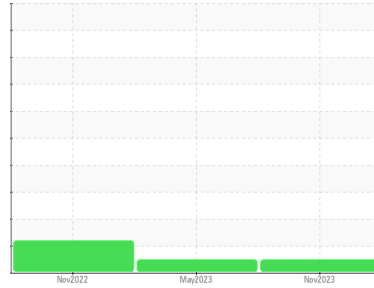




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
3004M

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

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. No other contaminants were detected 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 INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		IL06026239	IL0028945	IL0028993
Sample Date	Client Info		29 Nov 2023	22 May 2023	30 Nov 2022
Machine Age	mls	Client Info	48534	33368	17019
Oil Age	mls	Client Info	15134	15000	15000
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			NORMAL	NORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	▲ 2.1
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	50	62	108
Chromium	ppm	ASTM D5185m >20	3	4	4
Nickel	ppm	ASTM D5185m >4	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	55	53	75
Lead	ppm	ASTM D5185m >40	0	0	<1
Copper	ppm	ASTM D5185m >330	2	6	30
Tin	ppm	ASTM D5185m >15	0	<1	2
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	0	1	30
Barium	ppm	ASTM D5185m 10	2	0	0
Molybdenum	ppm	ASTM D5185m 100	58	61	51
Manganese	ppm	ASTM D5185m	0	2	6
Magnesium	ppm	ASTM D5185m 450	860	943	826
Calcium	ppm	ASTM D5185m 3000	983	1087	1260
Phosphorus	ppm	ASTM D5185m 1150	837	876	680
Zinc	ppm	ASTM D5185m 1350	1067	1100	844
Sulfur	ppm	ASTM D5185m 4250	3074	3175	2197

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	9	25
Sodium	ppm	ASTM D5185m >158	0	3	9
Potassium	ppm	ASTM D5185m >20	109	117	212

INFRA-RED

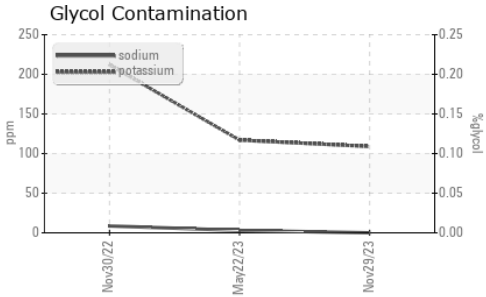
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.9	0.9	0.9
Nitration	Abs/cm	*ASTM D7624 >20	11.5	11.6	14.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	28.0	24.9	29.1

FLUID DEGRADATION

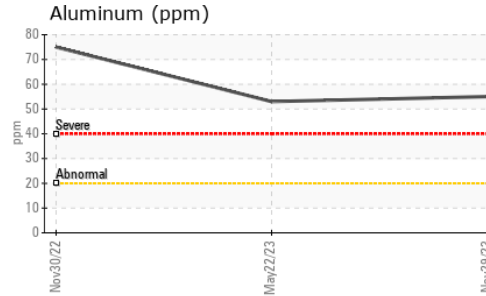
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	31.6	25.5	32.9
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	5.1	6.8	6.0



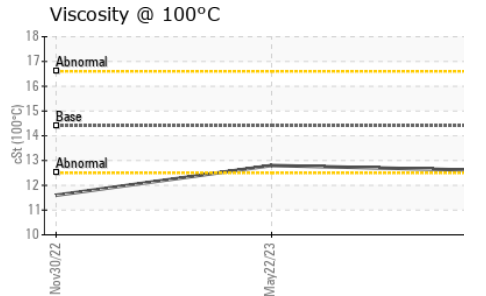
OIL ANALYSIS REPORT



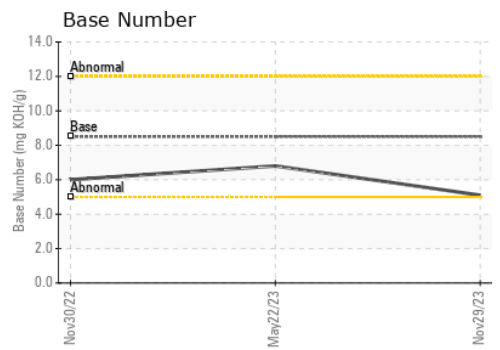
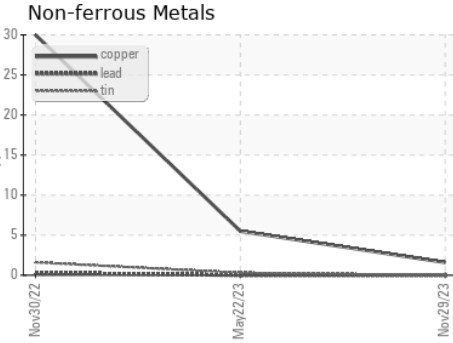
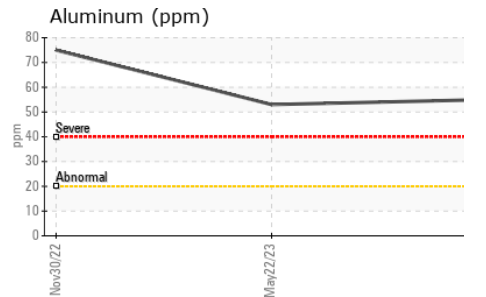
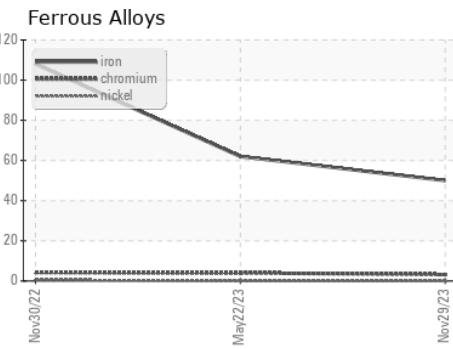
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	12.8 ▲ 11.6



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06026239 **Received** : 06 Dec 2023
Lab Number : 06026239 **Diagnosed** : 07 Dec 2023
Unique Number : 10776030 **Diagnostician** : Don Baldrige
Test Package : FLEET

RUSH TRUCK CENTER - CHICAGO IDEALEASE
 4655 SOUTH CENTRAL AVENUE
 CHICAGO, IL
 US 60638

Contact: MIKE LINLEY
 linleym@rushtruckcenters.com
 T: (708)496-7500
 F: (708)496-8818

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)