



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
1846L
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06175101	IL0032401	IL0032297
Sample Date		Client Info		17 Apr 2024	06 Nov 2023	26 Jul 2023
Machine Age	mls	Client Info		0	23839	12386
Oil Age	mls	Client Info		15000	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	88	98	▲ 162
Chromium	ppm	ASTM D5185m	>20	2	2	3
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	7	11	● 20
Lead	ppm	ASTM D5185m	>40	2	4	15
Copper	ppm	ASTM D5185m	>330	8	32	208
Tin	ppm	ASTM D5185m	>15	2	5	14
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

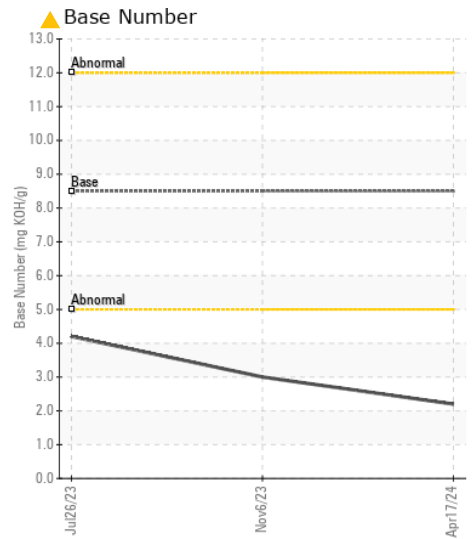
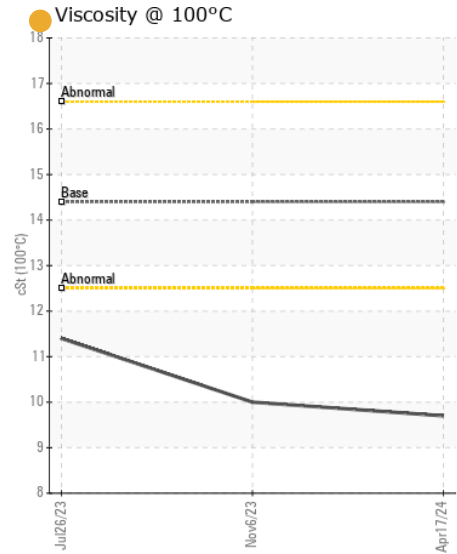
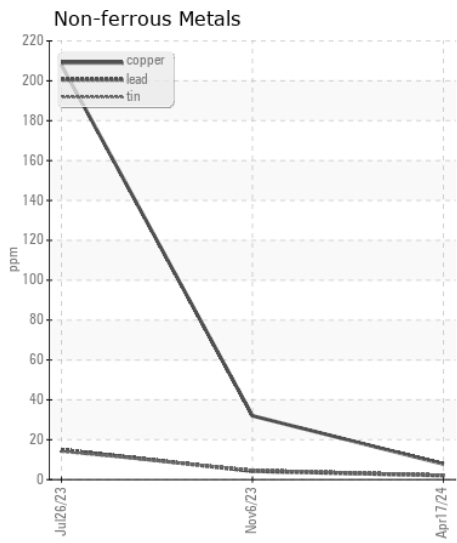
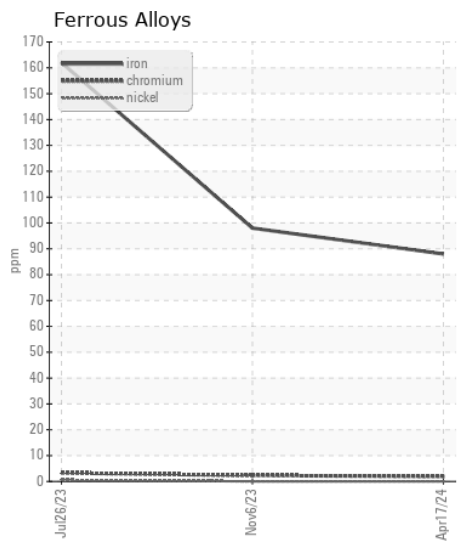
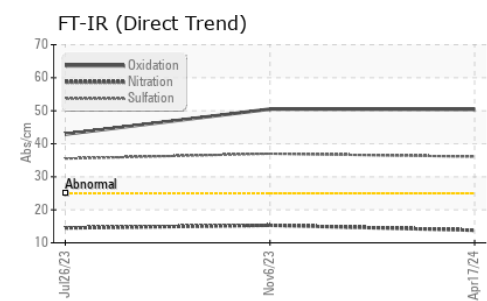
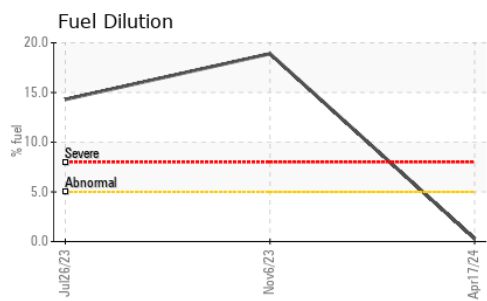
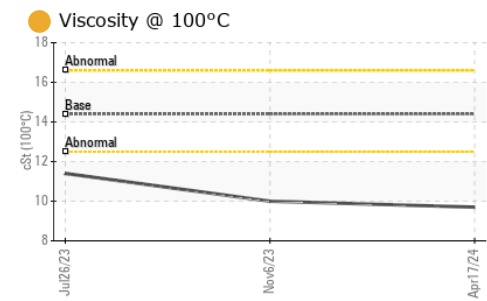
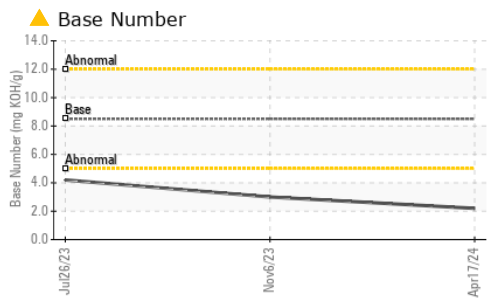
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	23	▲ 100
Potassium	ppm	ASTM D5185m	>20	4	16	35
Fuel	%	ASTM D3524	>5	0.3	▲ 18.9	▲ 14.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.5	1.6	1.4
Nitration	Abs/cm	*ASTM D7624	>20	13.8	15.3	14.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	36.1	37.0	35.5
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

FLUID CONDITION

The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	1	2	6
Boron	ppm	ASTM D5185m	250	0	<1	31
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	50	45	2
Manganese	ppm	ASTM D5185m		<1	1	3
Magnesium	ppm	ASTM D5185m	450	773	771	648
Calcium	ppm	ASTM D5185m	3000	850	917	1248
Phosphorus	ppm	ASTM D5185m	1150	836	862	893
Zinc	ppm	ASTM D5185m	1350	958	1032	1145
Sulfur	ppm	ASTM D5185m	4250	2396	2349	3380
Oxidation	Abs/.1mm	*ASTM D7414	>25	50.4	50.5	42.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 2.2	▲ 3.0	4.2
Visc @ 100°C	cSt	ASTM D445	14.4	● 9.7	▲ 10.0	▲ 11.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL06175101 **Received** : 10 May 2024
Lab Number : 06175101 **Tested** : 15 May 2024
Unique Number : 11021154 **Diagnosed** : 15 May 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: PercentFuel)

RUSH TRUCK CENTER - CHICAGO IDEALEASE
 4655 SOUTH CENTRAL AVENUE
 CHICAGO, IL
 US 60638
 Contact: MIKE LINLEY
 linleym@rushtruckcenters.com

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)

T: (708)496-7500
 F: (708)496-8818