



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
472203
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (44 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0036514	IL0031160	IL0026955
Sample Date		Client Info		26 Apr 2024	15 Jun 2023	04 Oct 2022
Machine Age	mls	Client Info		323090	236335	172100
Oil Age	mls	Client Info		35244	64235	42995
Filter Age	mls	Client Info		35244	64235	42995
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	41	83	31
Chromium	ppm	ASTM D5185m	>20	2	4	2
Nickel	ppm	ASTM D5185m	>4	1	2	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	6	11
Lead	ppm	ASTM D5185m	>40	3	7	5
Copper	ppm	ASTM D5185m	>330	2	2	3
Tin	ppm	ASTM D5185m	>15	1	2	1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

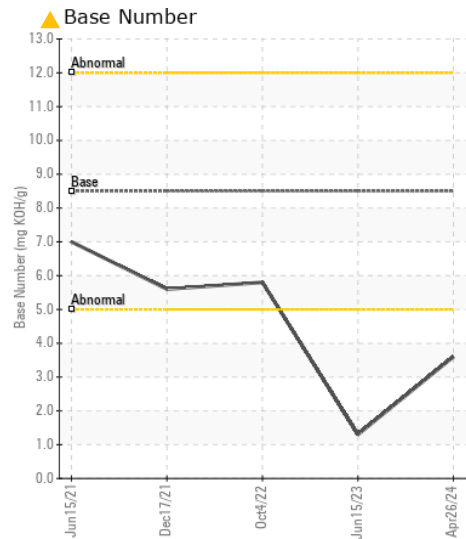
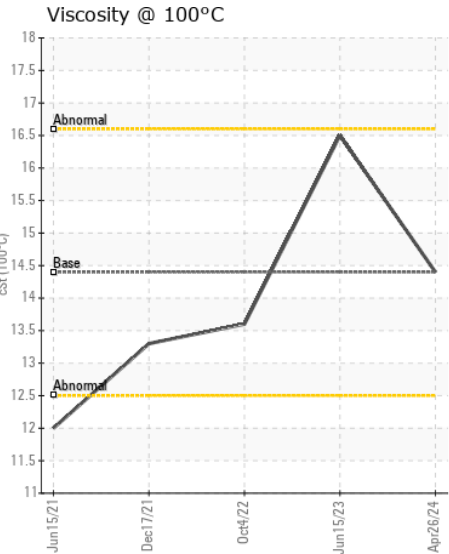
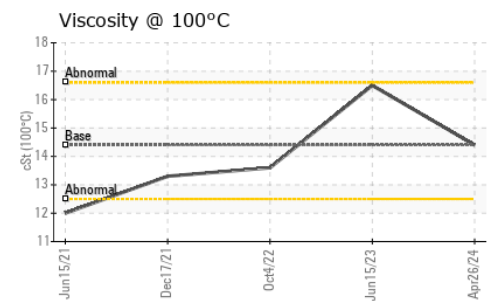
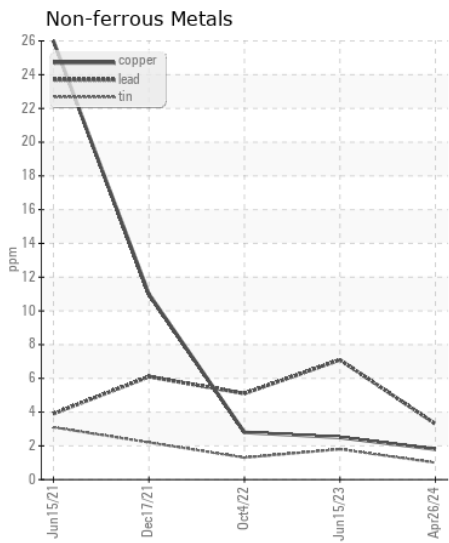
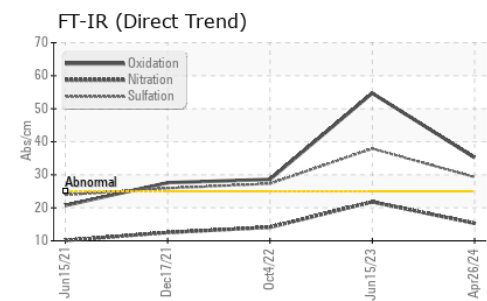
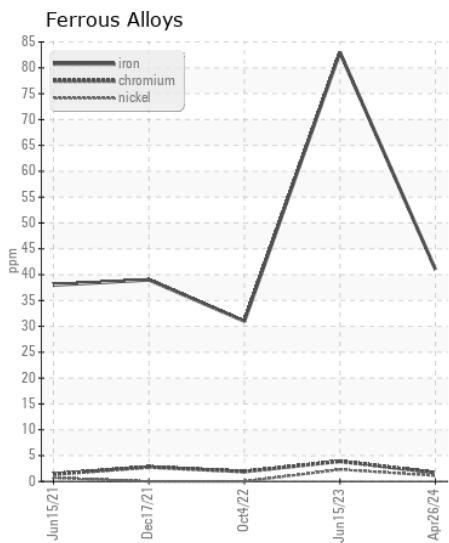
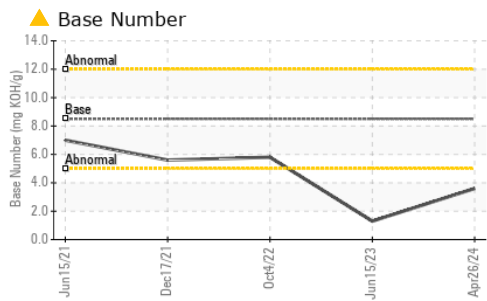
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	7	7
Potassium	ppm	ASTM D5185m	>20	8	12	21
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	15.3	21.8	14.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.3	37.9	27.3
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 BN level is low.

Sodium	ppm	ASTM D5185m	>158	0	3	0
Boron	ppm	ASTM D5185m	250	<1	4	9
Barium	ppm	ASTM D5185m	10	2	0	0
Molybdenum	ppm	ASTM D5185m	100	67	68	56
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m	450	953	1024	638
Calcium	ppm	ASTM D5185m	3000	1114	1233	1360
Phosphorus	ppm	ASTM D5185m	1150	1104	1106	823
Zinc	ppm	ASTM D5185m	1350	1249	1364	1015
Sulfur	ppm	ASTM D5185m	4250	3047	3262	2700
Oxidation	Abs/.1mm	*ASTM D7414	>25	35.2	54.7	28.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	3.6	1.3	5.8
Visc @ 100°C	cSt	ASTM D445	14.4	14.4	16.5	13.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0036514
Lab Number : 06176496
Unique Number : 11022549
Test Package : FLEET
Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 14 May 2024 - Sean Felton

RUSH TRUCK LEASING - CLEVELAND IDEALEASE
 5 ACORN DR
 OAKWOOD VILLAGE, OH
 US 44146-5550
 Contact: JOHN FOSTER
 FosterJ4@RushEnterprises.com
 T: (440)359-7000
 F: (440)439-5657

Certificate L2367
 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)