



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
846-3976
 Component
Diesel Engine
 Fluid
{not provided} (6 QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0019349	RPL0015843	RPL0012568
Sample Date		Client Info		18 Apr 2024	27 Oct 2023	05 May 2023
Machine Age	mls	Client Info		179658	176808	172247
Oil Age	mls	Client Info		7411	14528	9958
Filter Age	mls	Client Info		7411	14528	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	14	10	12
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	4	2
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	17
Tin	ppm	ASTM D5185m	>15	0	0	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

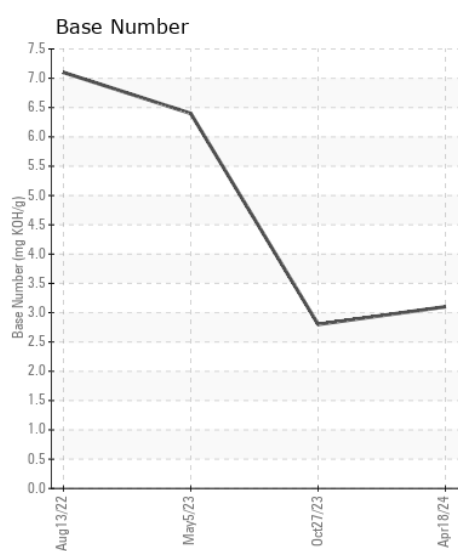
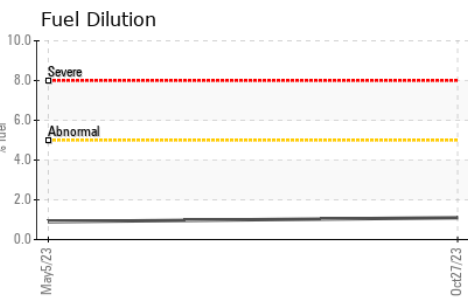
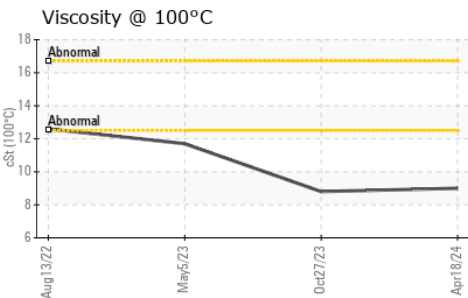
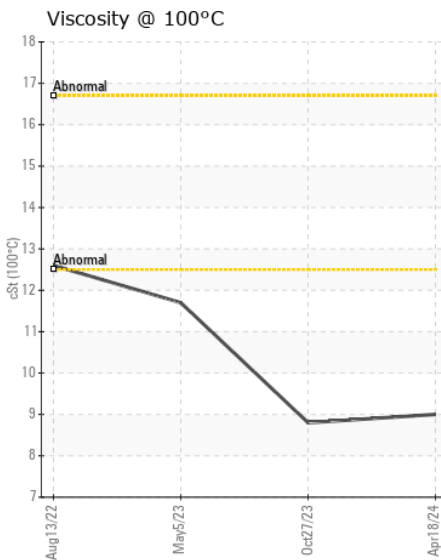
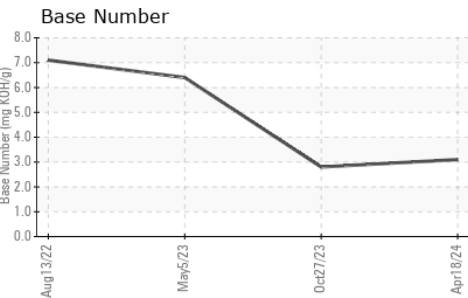
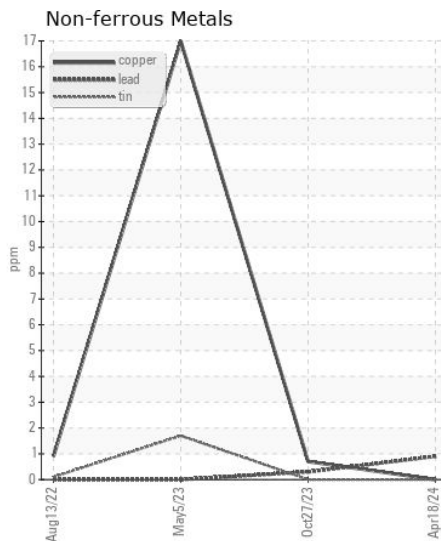
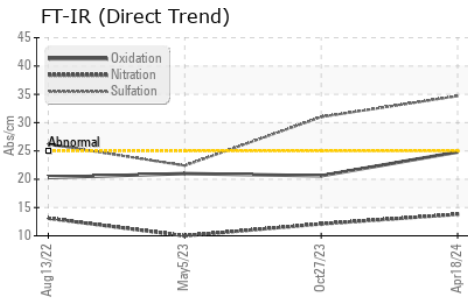
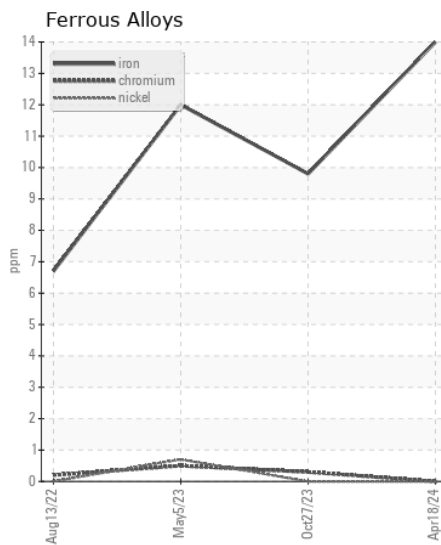
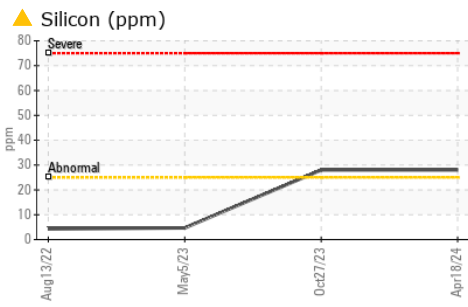
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>25	▲ 28	▲ 28	5
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel	%	ASTM D3524	>5	<1.0	1.1	0.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	13.8	12.1	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.7	31.0	22.4
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 result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		5	5	4
Boron	ppm	ASTM D5185m		27	29	82
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		72	79	51
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		571	598	494
Calcium	ppm	ASTM D5185m		993	1051	1331
Phosphorus	ppm	ASTM D5185m		755	774	635
Zinc	ppm	ASTM D5185m		895	966	831
Sulfur	ppm	ASTM D5185m		3171	3336	2425
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.8	20.6	21.0
Base Number (BN)	mg KOH/g	ASTM D2896		3.1	▲ 2.8	6.4
Visc @ 100°C	cSt	ASTM D445		9.0	8.8	11.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0019349 **Received** : 10 May 2024
Lab Number : 06175333 **Tested** : 13 May 2024
Unique Number : 11021386 **Diagnosed** : 13 May 2024 - Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution)

RTL PACLEASE - 7006 - Pico Rivera
 7837 Telegraph Rd
 Pico Rivera, CA
 US 90660
 Contact: GERARDO CARROLA
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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)

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