



OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
139-319
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (44 GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0016753	RPL0015275	RPL0007308
Sample Date		Client Info		12 Apr 2024	19 Dec 2023	03 Feb 2023
Machine Age	hrs	Client Info		569850	534111	437223
Oil Age	hrs	Client Info		35739	25000	15309
Filter Age	hrs	Client Info		0	25000	15309
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	17	13	25
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		2	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	5	5	3
Lead	ppm	ASTM D5185m	>40	3	3	6
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

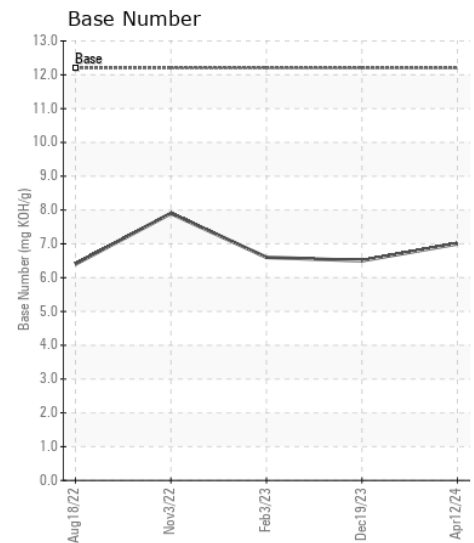
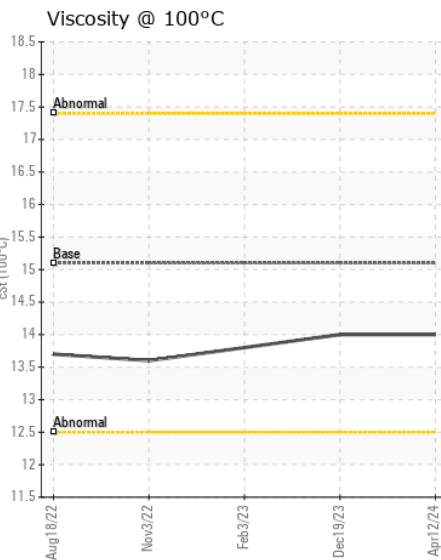
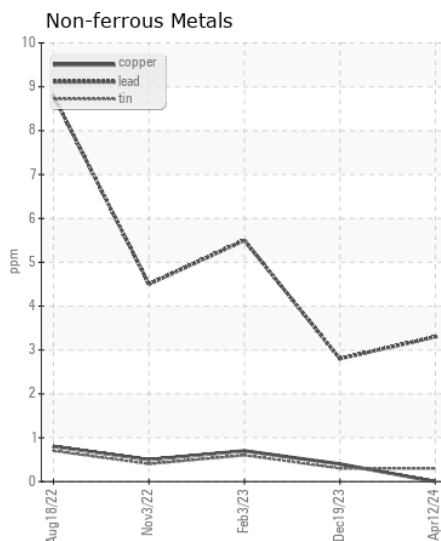
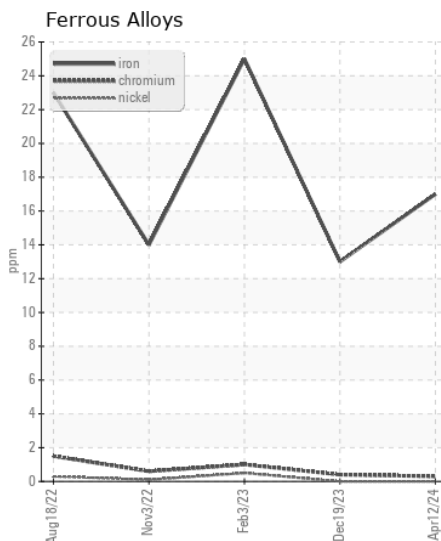
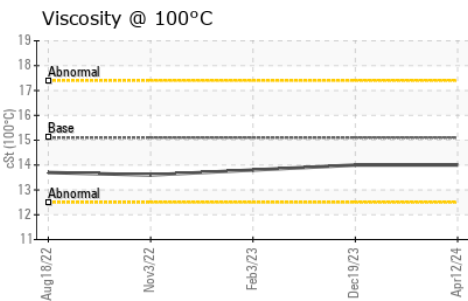
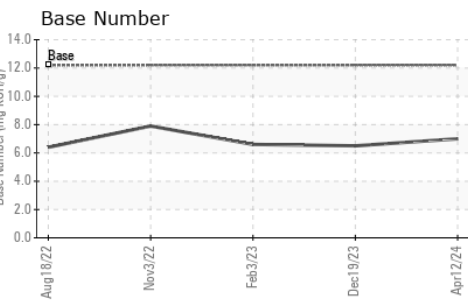
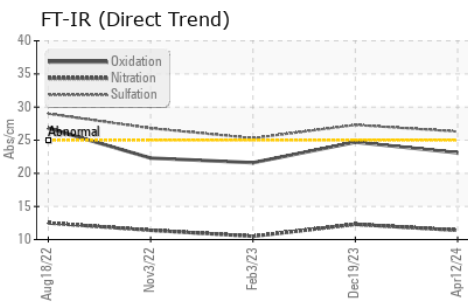
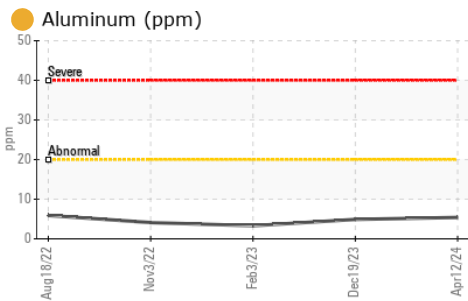
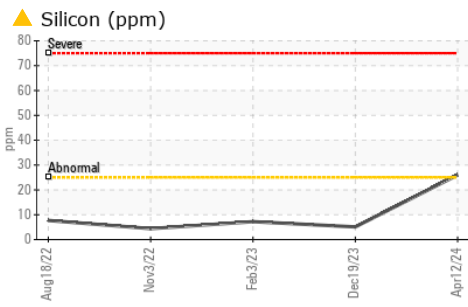
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>25	▲ 26	5	7
Potassium	ppm	ASTM D5185m	>20	2	9	29
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	0.6	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.4	12.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.3	27.3	25.3
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 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		0	<1	2
Boron	ppm	ASTM D5185m		145	65	171
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		113	97	191
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		716	595	618
Calcium	ppm	ASTM D5185m		1543	1106	1574
Phosphorus	ppm	ASTM D5185m	1360	712	509	595
Zinc	ppm	ASTM D5185m	1480	836	617	767
Sulfur	ppm	ASTM D5185m		2725	1901	2503
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.1	24.7	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	7.0	6.5	6.6
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	14.0	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : RPL0016753

Lab Number : 06151449

Unique Number : 10981527

Test Package : FLEET

Received : 17 Apr 2024

Tested : 18 Apr 2024

Diagnosed : 19 Apr 2024 - Sean Felton

RTL PACLEASE - 7005 - Arlington

1900 E Division

Arlington, TX

US 76011

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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)