



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
CARDINAL PRIDE

Machine Id
CPR

Component
Port Main Engine

Fluid
CHEVRON DELO 710 LS (75 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0065119	MW0065143	MW0061004
Sample Date		Client Info		19 Feb 2024	29 Dec 2023	14 Nov 2023
Machine Age	hrs	Client Info		21595	20509	19587
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	22	13	11
Chromium	ppm	ASTM D5185m	>8	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	<1
Lead	ppm	ASTM D5185m	>18	▲ 21	2	2
Copper	ppm	ASTM D5185m	>80	<1	0	0
Tin	ppm	ASTM D5185m	>14	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

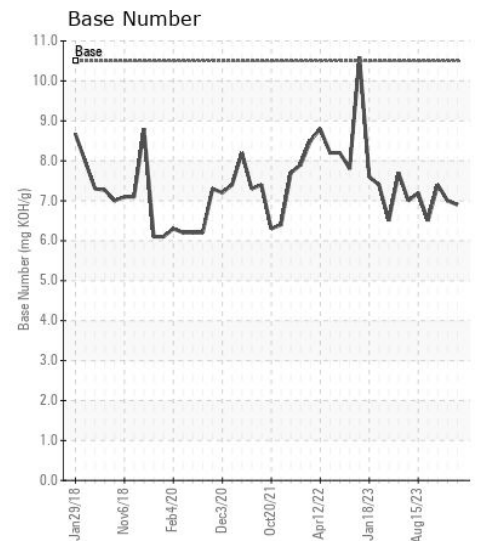
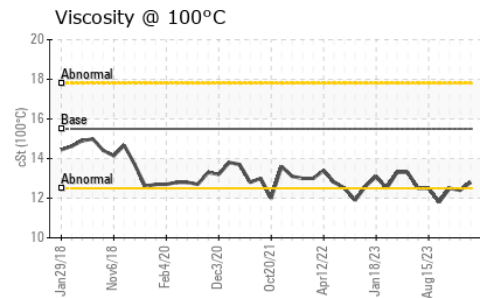
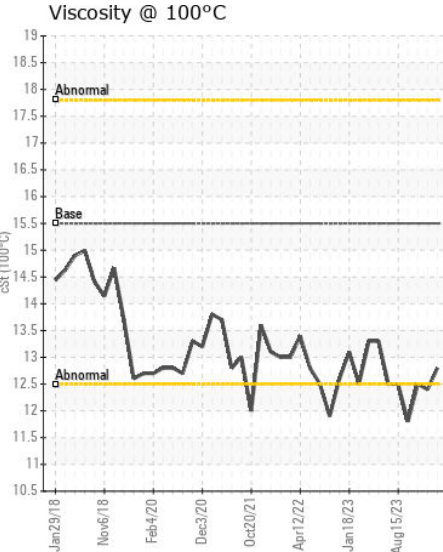
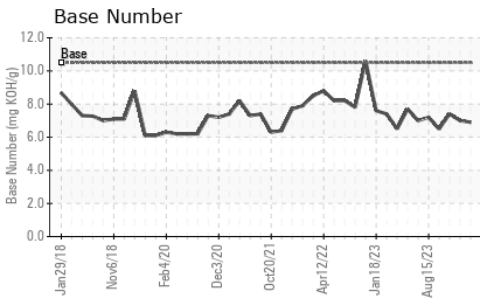
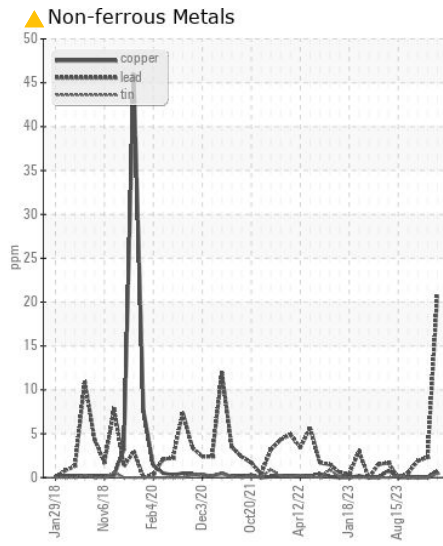
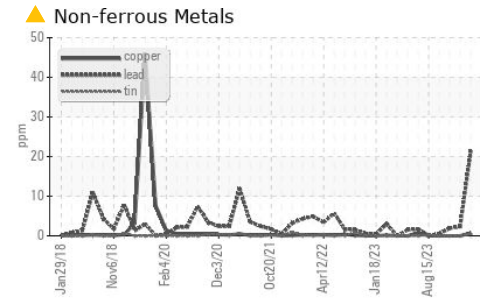
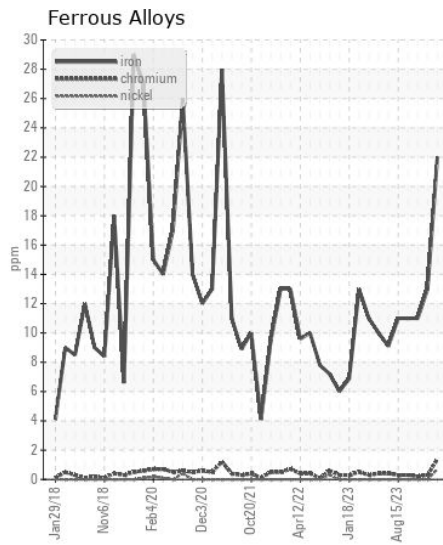
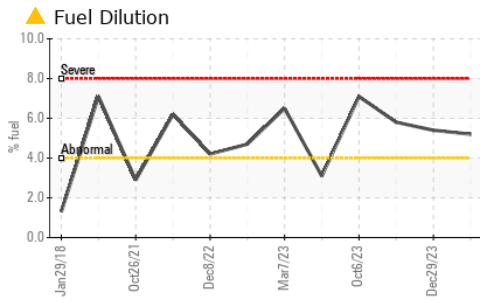
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	2	2
Potassium	ppm	ASTM D5185m	>20	4	4	0
Fuel	%	ASTM D3524	>4.0	▲ 5.2	▲ 5.4	▲ 5.8
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.2	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.0	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	16.1	15.7
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	22	24	8
Boron	ppm	ASTM D5185m		42	44	39
Barium	ppm	ASTM D5185m		34	3	0
Molybdenum	ppm	ASTM D5185m		51	47	42
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		9	7	8
Calcium	ppm	ASTM D5185m		3259	3196	3270
Phosphorus	ppm	ASTM D5185m		37	47	0
Zinc	ppm	ASTM D5185m		28	0	0
Sulfur	ppm	ASTM D5185m		2282	2213	1990
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	11.3	10.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	6.9	7.0	7.4
Visc @ 100°C	cSt	ASTM D445	15.5	12.8	12.4	12.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0065119 **Received** : 26 Feb 2024
Lab Number : 06099891 **Tested** : 27 Feb 2024
Unique Number : 10898121 **Diagnosed** : 28 Feb 2024 - Jonathan Hester
Test Package : MAR 2 (Additional Tests: PercentFuel)

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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)