



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
CHARLIE M EVERHART
Machine Id
[CHARLIE M EVERHART] 001 534782-1
Component
Port Main Engine
Fluid
CHEVRON DELO 400 LE 15W40 (30 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0068154	MW0062865	MW0062856
Sample Date		Client Info		02 Jun 2024	01 May 2024	18 Apr 2024
Machine Age	hrs	Client Info		5458	4642	3924
Oil Age	hrs	Client Info		990	178	971
Filter Age	hrs	Client Info		990	178	971
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	10	5	19
Chromium	ppm	ASTM D5185m	>8	0	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>3	<1	<1	1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	3	3	6
Lead	ppm	ASTM D5185m	>18	7	3	8
Copper	ppm	ASTM D5185m	>80	▲ 193	▲ 128	▲ 121
Tin	ppm	ASTM D5185m	>14	0	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

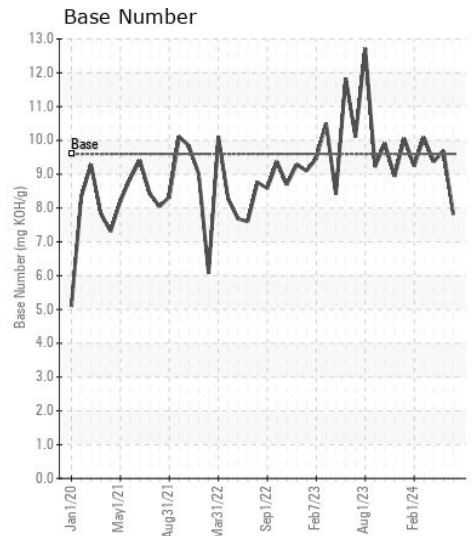
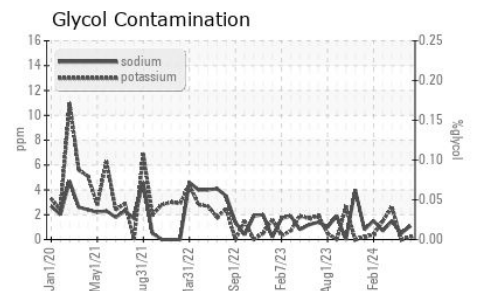
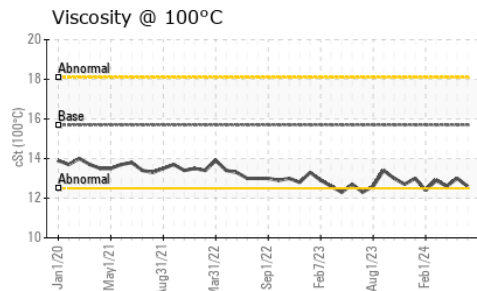
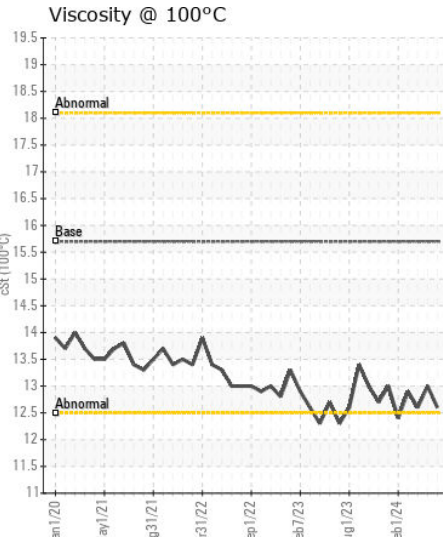
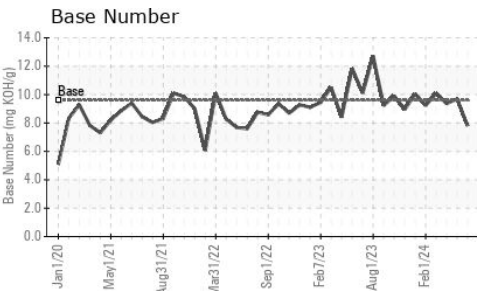
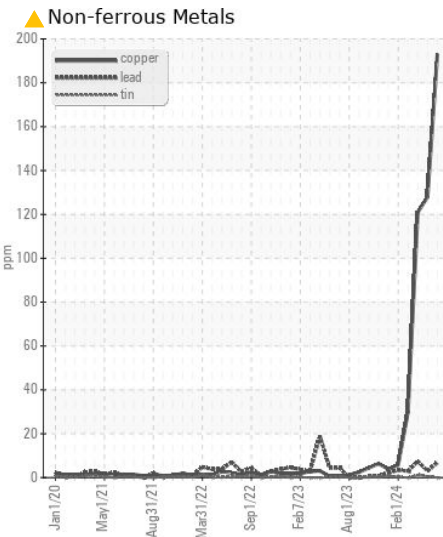
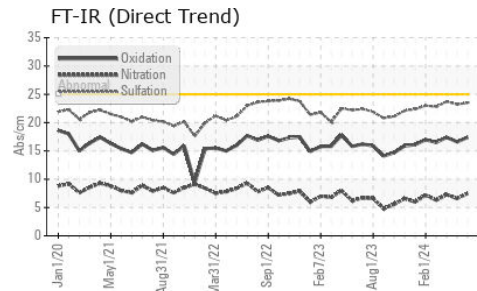
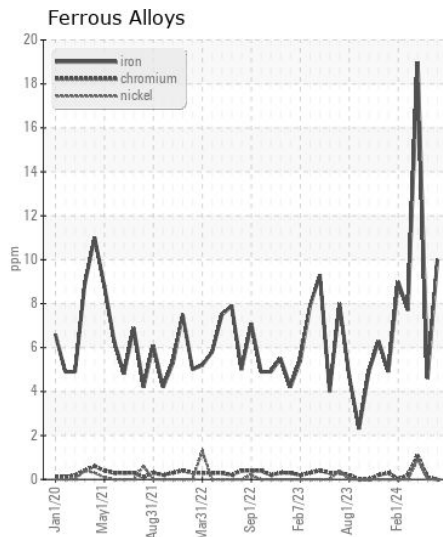
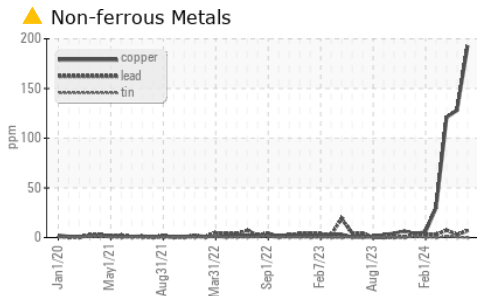
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	5	5	11
Potassium	ppm	ASTM D5185m	>20	<1	0	3
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.5	6.6	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	23.2	23.7
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	1	<1	2
Boron	ppm	ASTM D5185m		297	381	659
Barium	ppm	ASTM D5185m		0	1	2
Molybdenum	ppm	ASTM D5185m		121	119	194
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		648	627	934
Calcium	ppm	ASTM D5185m		1706	1451	2330
Phosphorus	ppm	ASTM D5185m	1200	719	736	1084
Zinc	ppm	ASTM D5185m	1300	905	812	1294
Sulfur	ppm	ASTM D5185m	3200	2868	2745	4124
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	16.6	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	7.81	9.69	9.37
Visc @ 100°C	cSt	ASTM D445	15.7	12.6	13.0	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0068154 **Received** : 14 Jun 2024
Lab Number : 06210908 **Tested** : 18 Jun 2024
Unique Number : 11083772 **Diagnosed** : 18 Jun 2024 - Sean Felton
Test Package : MAR 2 (Additional Tests: Glycol)

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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)