



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**PRS**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 400 XLE 15W40 (28 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW06017188</b>	MW05862885	MW05823805
Sample Date		Client Info		<b>23 Nov 2023</b>	01 Jun 2023	18 Apr 2023
Machine Age	hrs	Client Info		<b>30314</b>	29382	28178
Oil Age	hrs	Client Info		<b>508</b>	623	650
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>2</b>	2	6
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	>3	<b>2</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>18	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>80	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>14	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

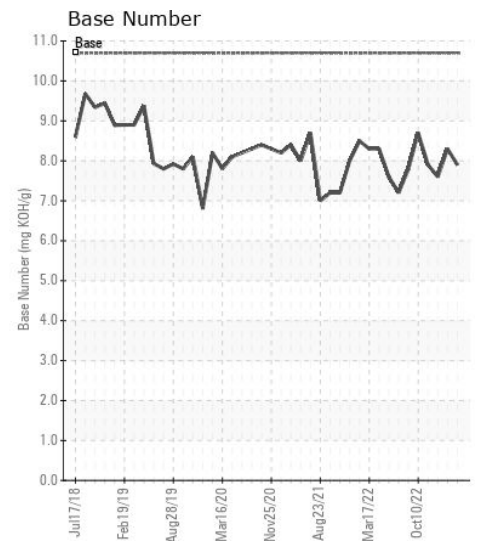
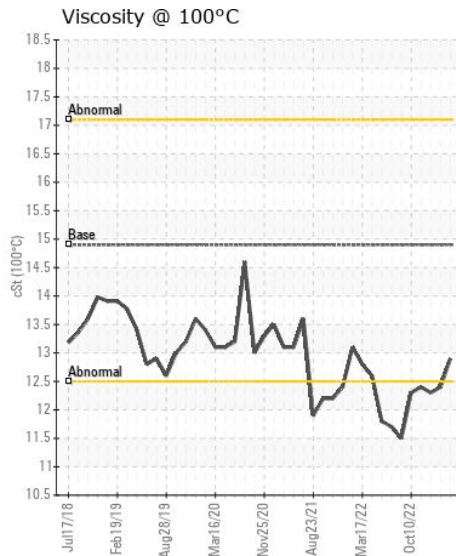
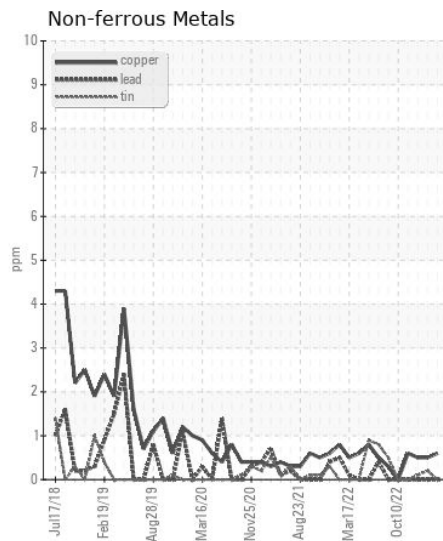
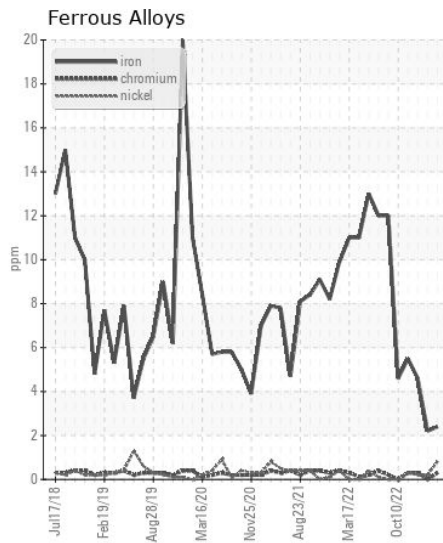
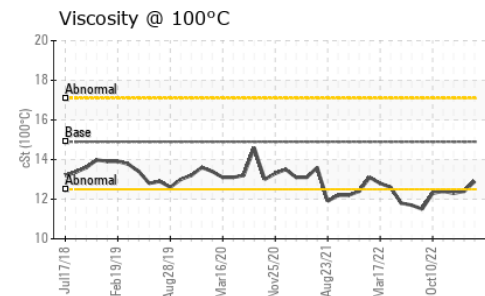
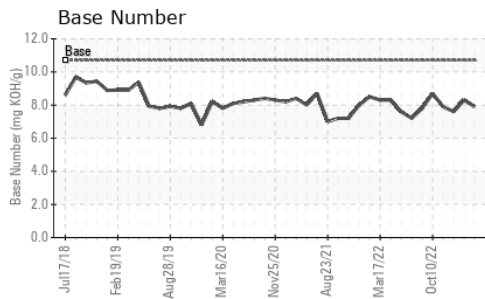
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	5	11
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.7</b>	5.8	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	21.3	22.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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	<b>3</b>	5	4
Boron	ppm	ASTM D5185m		<b>212</b>	264	266
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>81</b>	87	105
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>605</b>	522	565
Calcium	ppm	ASTM D5185m		<b>1240</b>	1637	1310
Phosphorus	ppm	ASTM D5185m	760	<b>708</b>	748	696
Zinc	ppm	ASTM D5185m	830	<b>931</b>	899	842
Sulfur	ppm	ASTM D5185m	2770	<b>3188</b>	3231	2427
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	15.1	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>7.9</b>	8.3	7.6
Visc @ 100°C	cSt	ASTM D445	14.9	<b>12.9</b>	12.4	12.3



Certificate L2367

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

**Sample No.** : MW06017188

**Lab Number** : 06017188

**Unique Number** : 10756332

**Test Package** : MAR 2

**Received** : 24 Nov 2023

**Tested** : 28 Nov 2023

**Diagnosed** : 28 Nov 2023 - Wes Davis

**ILLINOIS MARINE TOWING**

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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)