



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

Machine Id  
**STAN HUMPHREYS**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 400 LE 15W40 (165 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0057801</b>	MW0057796	MW0057938
Sample Date		Client Info		<b>08 Jun 2024</b>	07 Apr 2024	12 Mar 2024
Machine Age	hrs	Client Info		<b>24647</b>	23499	23173
Oil Age	hrs	Client Info		<b>460</b>	934	475
Filter Age	hrs	Client Info		<b>460</b>	340	475
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>2</b>	2	2
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>11</b>	15	15
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>1</b>	2	3
Lead	ppm	ASTM D5185m	>18	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>80	<b>1</b>	2	2
Tin	ppm	ASTM D5185m	>14	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

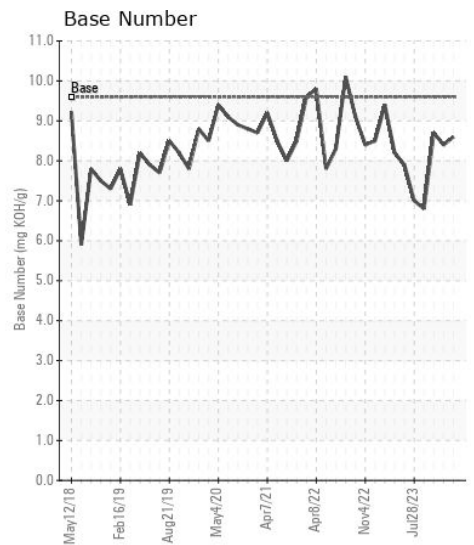
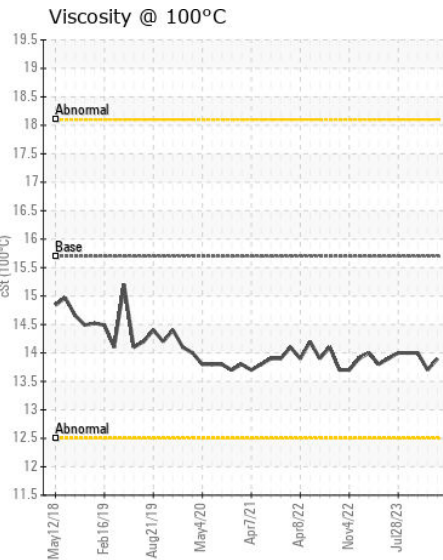
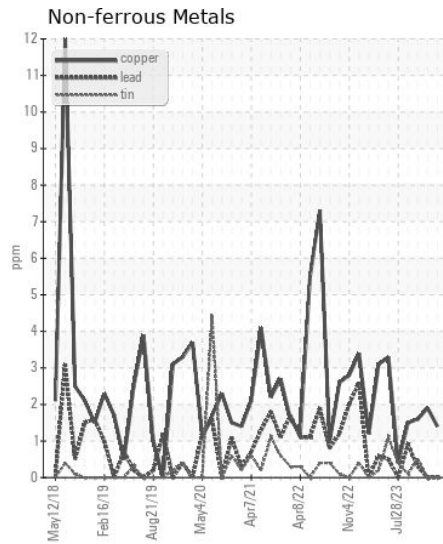
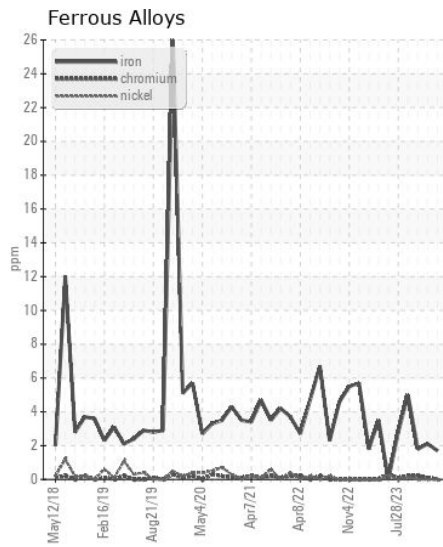
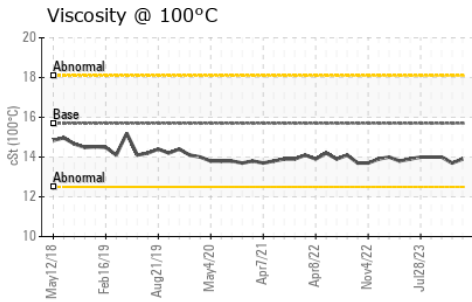
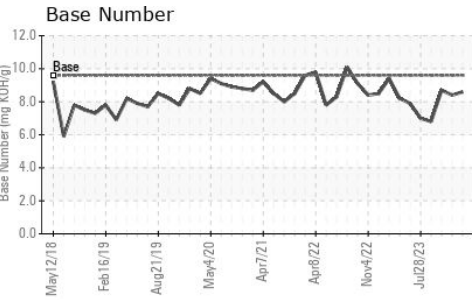
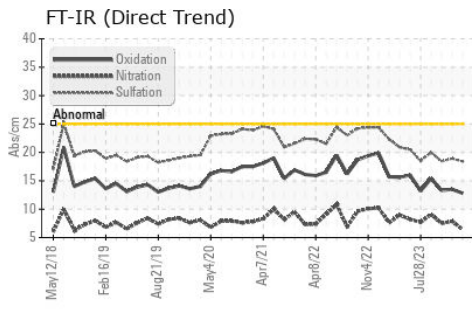
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	3
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>6.4</b>	7.9	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	18.9	18.4
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>2</b>	1	2
Boron	ppm	ASTM D5185m		<b>192</b>	127	126
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>52</b>	39	39
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>662</b>	816	702
Calcium	ppm	ASTM D5185m		<b>1573</b>	1604	1485
Phosphorus	ppm	ASTM D5185m	1200	<b>823</b>	796	711
Zinc	ppm	ASTM D5185m	1300	<b>939</b>	887	807
Sulfur	ppm	ASTM D5185m	3200	<b>3693</b>	3755	3101
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.8</b>	13.5	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	<b>8.6</b>	8.4	8.7
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.9</b>	13.7	14.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0057801  
**Lab Number** : 06211139  
**Unique Number** : 11084003  
**Test Package** : MAR 2

**Received** : 14 Jun 2024  
**Tested** : 18 Jun 2024  
**Diagnosed** : 18 Jun 2024 - Wes Davis

**MAGNOLIA MARINE TRANSPORT**  
 697 HAINING ROAD  
 VICKSBURG, MS  
 US 39183  
 Contact: MMT MAINTENANCE PLANNERS  
 mmtmaintenanceplanners@ergon.com

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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