



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

Machine Id  
**ANDREW CANNAVA (S/N 76-G1-1007)**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 710 LS (350 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0069565</b>	MW0069566	MW0069675
Sample Date		Client Info		<b>15 Jun 2024</b>	29 May 2024	15 May 2024
Machine Age	hrs	Client Info		<b>16895</b>	16519	16225
Oil Age	hrs	Client Info		<b>16895</b>	16519	16225
Filter Age	hrs	Client Info		<b>901</b>	515	201
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>12</b>	15	17
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>18	<b>4</b>	5	7
Copper	ppm	ASTM D5185m	>80	<b>10</b>	11	12
Tin	ppm	ASTM D5185m	>14	<b>6</b>	5	6
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<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.

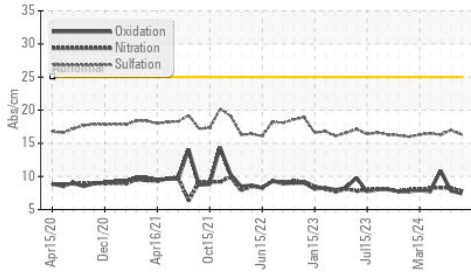
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	4	6
Potassium	ppm	ASTM D5185m	>20	<b>292</b>	377	▲ 502
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1</b>	1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	8.2	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.3</b>	17.0	16.3
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**

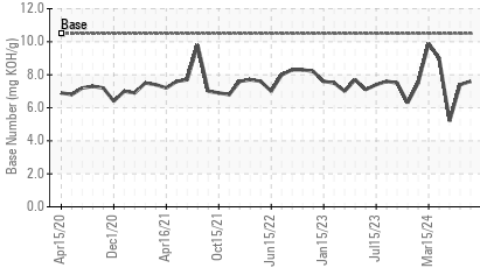
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>42</b>	52	● 73
Boron	ppm	ASTM D5185m		<b>41</b>	43	43
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>81</b>	92	109
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>27</b>	11	11
Calcium	ppm	ASTM D5185m		<b>3521</b>	3416	3546
Phosphorus	ppm	ASTM D5185m		<b>17</b>	16	14
Zinc	ppm	ASTM D5185m		<b>26</b>	3	4
Sulfur	ppm	ASTM D5185m		<b>2594</b>	2471	2513
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>7.4</b>	7.8	10.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>7.6</b>	7.4	5.2
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.9</b>	15.0	15.2

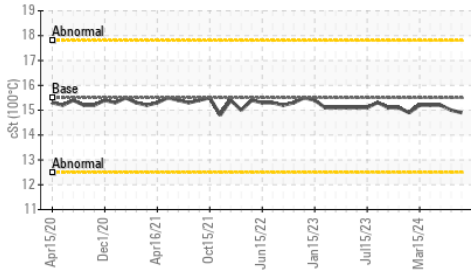
FT-IR (Direct Trend)



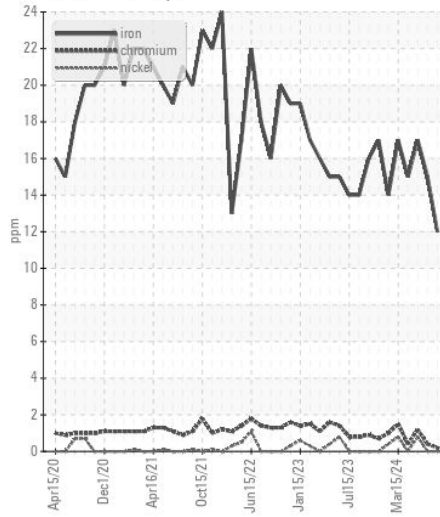
Base Number



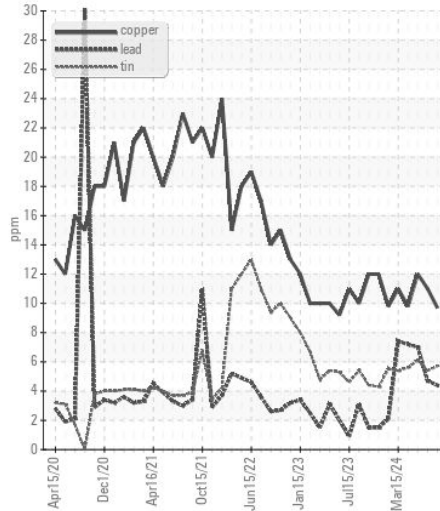
Viscosity @ 100°C



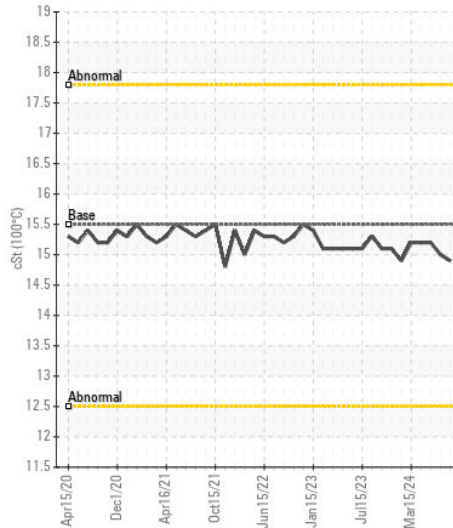
Ferrous Alloys



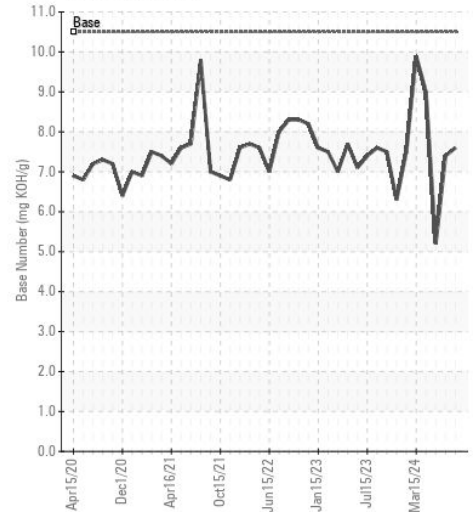
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0069565  
**Lab Number** : 06216668  
**Unique Number** : 11089532  
**Test Package** : MAR 2

**Received** : 21 Jun 2024  
**Tested** : 24 Jun 2024  
**Diagnosed** : 24 Jun 2024 - Wes Davis

**AMERICAN COMMERCIAL LINES**  
 PO BOX 610, 1701 E. MARKET STREET  
 JEFFERSONVILLE, IN  
 US 47130  
 Contact: RONALD SCHNEIDER  
 ronald.schneider@bargeacbl.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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