



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

Area

**ROBERT H BROWN**

Machine Id

[ROBERT H BROWN] 007 536019-7

Component

**Port Genset**

Fluid

**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0065802</b>	MW0065882	MW0065877
Sample Date		Client Info		<b>01 May 2024</b>	05 Apr 2024	01 Mar 2024
Machine Age	hrs	Client Info		<b>41283</b>	40983	40561
Oil Age	hrs	Client Info		<b>144</b>	270	228
Filter Age	hrs	Client Info		<b>144</b>	270	228
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	>50	<b>3</b>	1	4
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>3</b>	4	4
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
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.

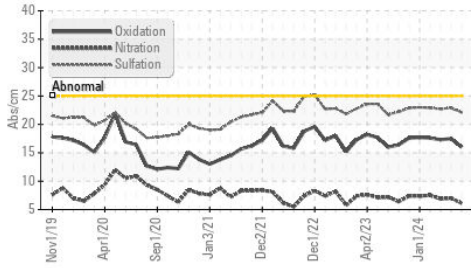
Silicon	ppm	ASTM D5185m	>25	<b>14</b>	12	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.1</b>	7.0	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.1</b>	22.9	22.7
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**

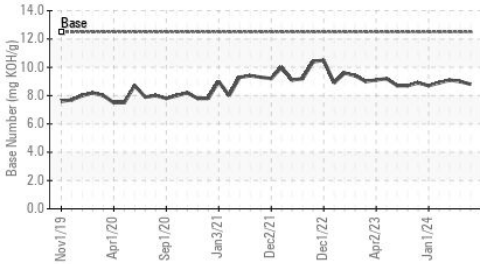
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	2
Boron	ppm	ASTM D5185m	151	<b>447</b>	356	326
Barium	ppm	ASTM D5185m	0.4	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	250	<b>128</b>	127	124
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m	0	<b>600</b>	679	627
Calcium	ppm	ASTM D5185m	2046	<b>1647</b>	1659	1543
Phosphorus	ppm	ASTM D5185m	1043	<b>794</b>	711	634
Zinc	ppm	ASTM D5185m	943	<b>873</b>	841	783
Sulfur	ppm	ASTM D5185m	5012	<b>2979</b>	3034	2474
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	17.5	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>8.8</b>	9.0	9.1
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.0	13.0

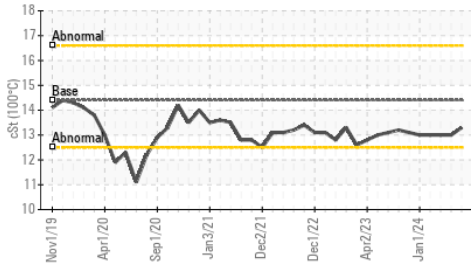
**FT-IR (Direct Trend)**



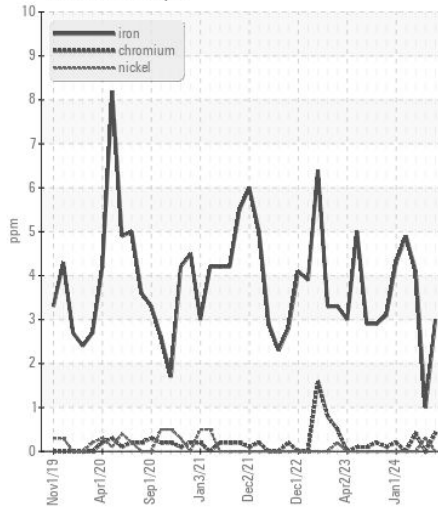
**Base Number**



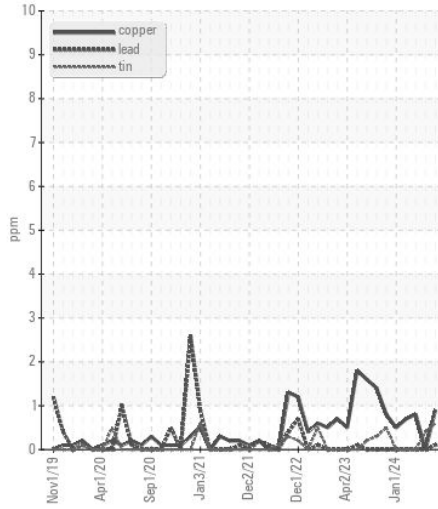
**Viscosity @ 100°C**



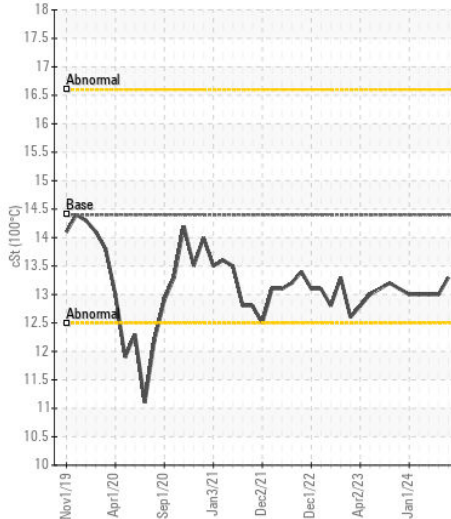
**Ferrous Alloys**



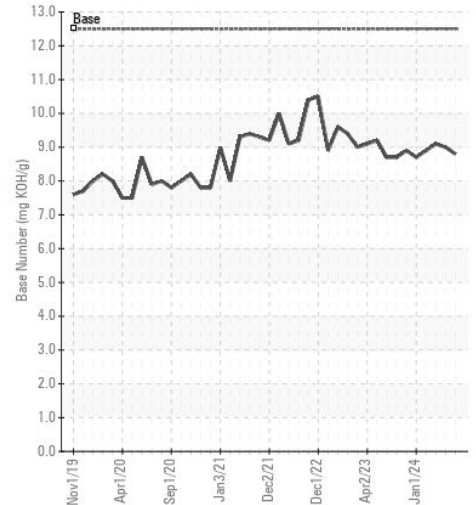
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : MW0065802

**Lab Number** : 06176622

**Unique Number** : 11022675

**Test Package** : MAR 2

**Received** : 10 May 2024

**Tested** : 13 May 2024

**Diagnosed** : 13 May 2024 - Wes Davis

**INGRAM BARGE**

900 S 3RD ST

PADUCAH, KY

US 42003

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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)