



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DALE ROBINS
Component
Port Genset
Fluid
CHEVRON URSA SUPER PLUS 40 (3 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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		MW0047395	MW0036433	MW0036424
Sample Date		Client Info		31 Jan 2024	11 Jul 2023	25 Mar 2023
Machine Age	hrs	Client Info		9728	8320	7480
Oil Age	hrs	Client Info		1280	800	728
Filter Age	hrs	Client Info		1280	800	728
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

Bearing and/or bushing wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	13	6	▲ 48
Chromium	ppm	ASTM D5185m	>4	<1	0	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	<1	2	1
Lead	ppm	ASTM D5185m	>17	▲ 34	<1	<1
Copper	ppm	ASTM D5185m	>70	▲ 44	5	▲ 14
Tin	ppm	ASTM D5185m	>15	3	<1	▲ 13
Vanadium	ppm	ASTM D5185m		0	<1	0
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.

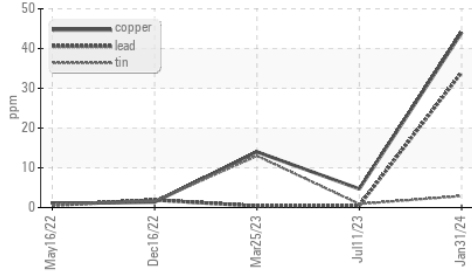
Silicon	ppm	ASTM D5185m	>25	11	4	20
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	3.4	3.9	3.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.1	14.9	13.4
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

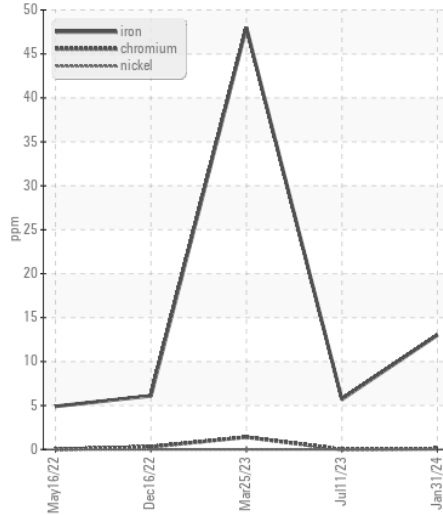
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		22	6	10
Boron	ppm	ASTM D5185m		124	301	322
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		29	31	31
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		18	38	104
Calcium	ppm	ASTM D5185m		2012	2493	2388
Phosphorus	ppm	ASTM D5185m	1000	627	644	702
Zinc	ppm	ASTM D5185m	1090	762	778	852
Sulfur	ppm	ASTM D5185m		2379	3135	3600
Oxidation	Abs/.1mm	*ASTM D7414	>25	6.7	6.8	6.1
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	4.8	6.1	5.3
Visc @ 100°C	cSt	ASTM D445	14.7	14.2	14.1	14.5

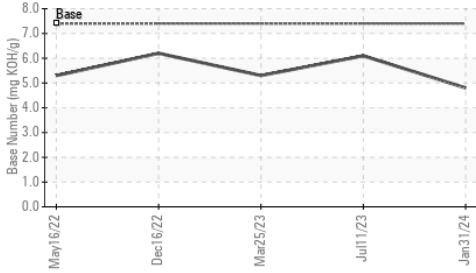
▲ Non-ferrous Metals



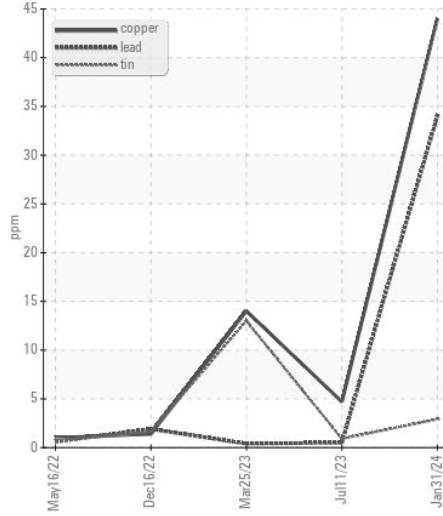
Ferrous Alloys



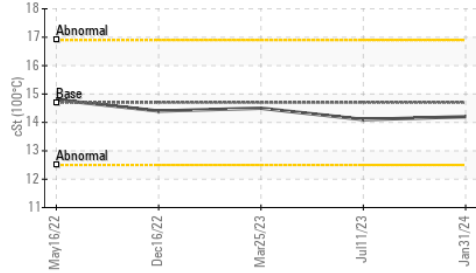
Base Number



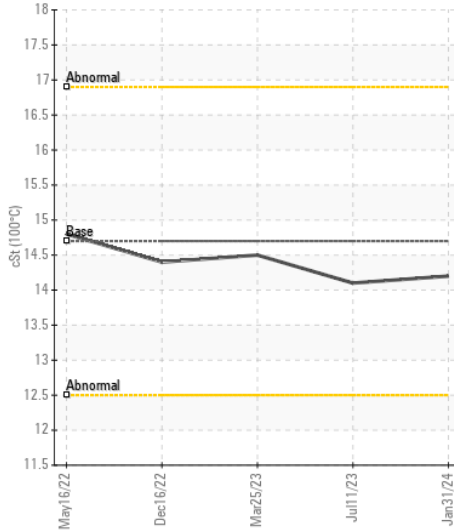
▲ Non-ferrous Metals



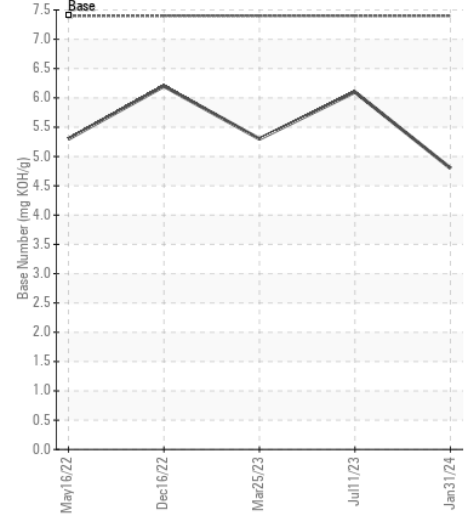
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : MW0047395

Lab Number : 06083039

Unique Number : 10870484

Test Package : MAR 2

Received : 07 Feb 2024

Tested : 08 Feb 2024

Diagnosed : 09 Feb 2024 - Don Baldrige

OSAGE MARINE

7501 E DAVIS ST

ST LOUIS, MO

US 63111

Contact: MIKE KESSLER

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T:

F:

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)