MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
SIGNET RESOLUTE FIRE ENGINE
Component
Aft Diesel Engine
Fluid
CHEVRON URSA SUPER PLUS 40 (14 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

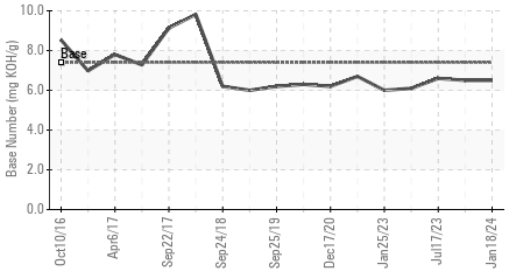
There is no indication of any contamination in the oil.

FLUID CONDITION

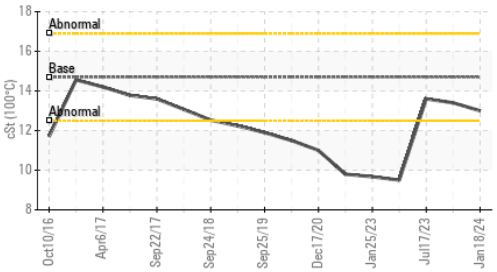
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0052033	MW0052013	MW0051970
Sample Date		Client Info		18 Jan 2024	17 Oct 2023	17 Jul 2023
Machine Age	hrs	Client Info		1	0	0
Oil Age	hrs	Client Info		0	1	0
Filter Age	hrs	Client Info		0	1	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	MARGINAL
Iron	ppm	ASTM D5185m	>200	32	34	4
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	<1	2	<1
Lead	ppm	ASTM D5185m	>30	2	2	<1
Copper	ppm	ASTM D5185m	>30	2	1	2
Tin	ppm	ASTM D5185m	>15	2	2	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>30	10	10	8
Potassium	ppm	ASTM D5185m	>20	<1	2	0
Fuel		WC Method	>3.0	<1.0	<1.0	▲ 1.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	3.3	3.2	3.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.2	15.0	15.1
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	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		1	0	1
Boron	ppm	ASTM D5185m		299	310	295
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		44	44	39
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		127	112	106
Calcium	ppm	ASTM D5185m		2295	2281	2269
Phosphorus	ppm	ASTM D5185m	1000	749	691	690
Zinc	ppm	ASTM D5185m	1090	886	817	802
Sulfur	ppm	ASTM D5185m		3181	3170	3294
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.2	7.2	7.3
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	6.5	6.5	6.6
Visc @ 100°C	cSt	ASTM D445	14.7	13.0	13.4	13.6

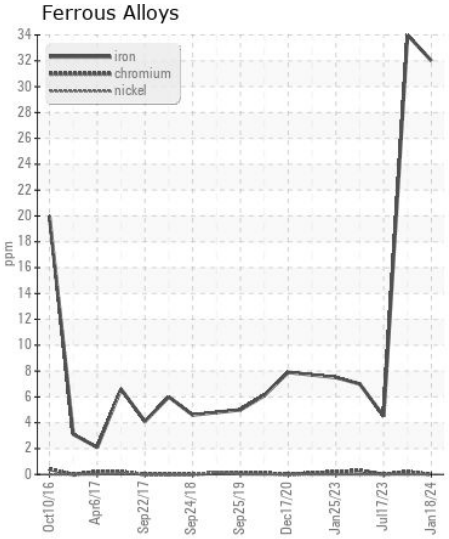
Base Number



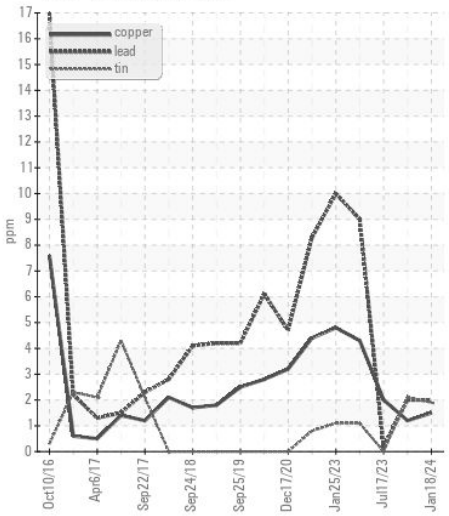
Viscosity @ 100°C



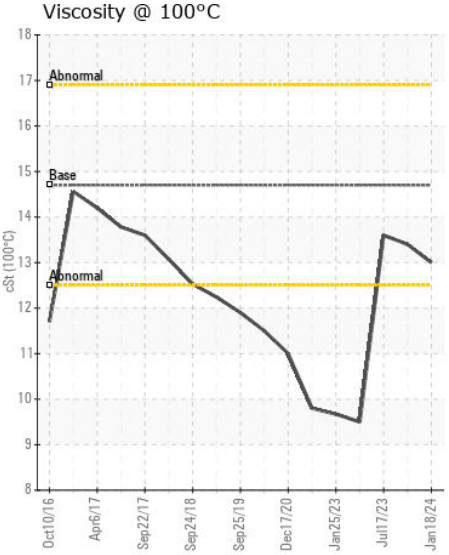
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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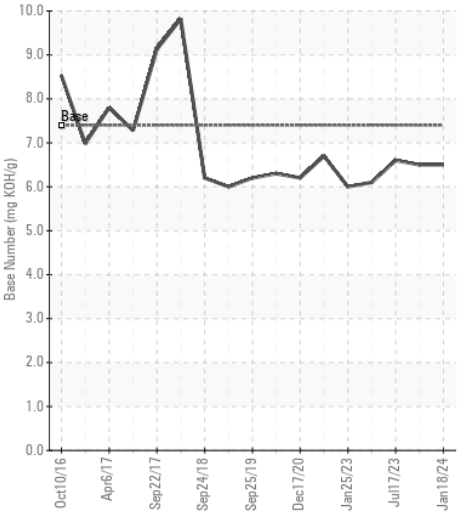

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: MW0052033	**Recieved**	: 19 Jan 2024
Lab Number	: 06065414	**Diagnosed**	: 22 Jan 2024
Unique Number	: 10836796	**Diagnostician**	: Wes Davis
Test Package	: MAR 2		

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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