



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0052032	MW0052012	MW0051971
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 Chngd	Changed	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>200	14	14	3
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	1	2	<1
Lead	ppm	ASTM D5185m	>30	3	4	0
Copper	ppm	ASTM D5185m	>30	4	4	0
Tin	ppm	ASTM D5185m	>15	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

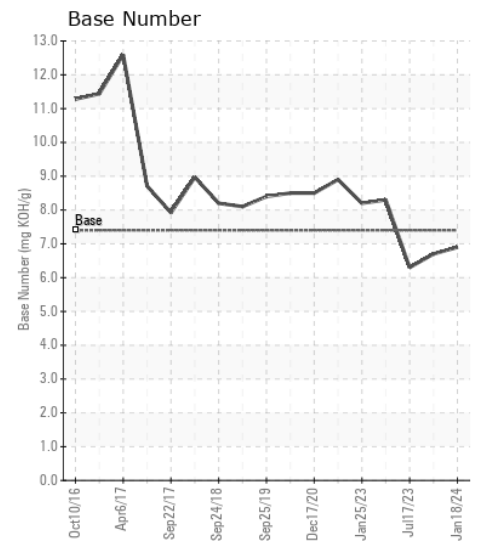
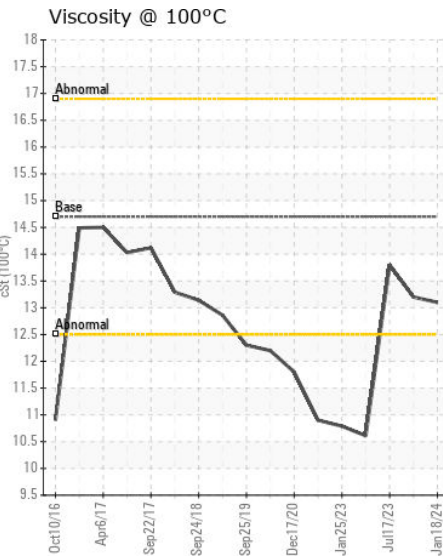
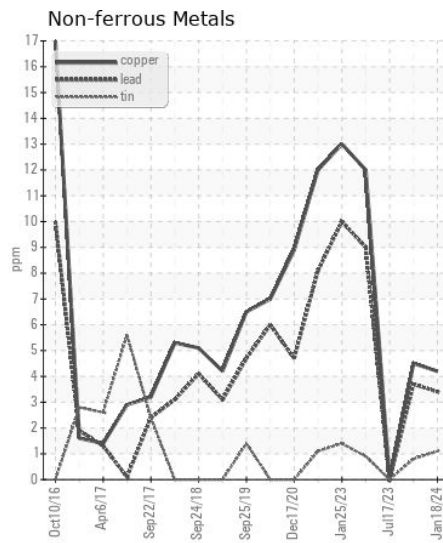
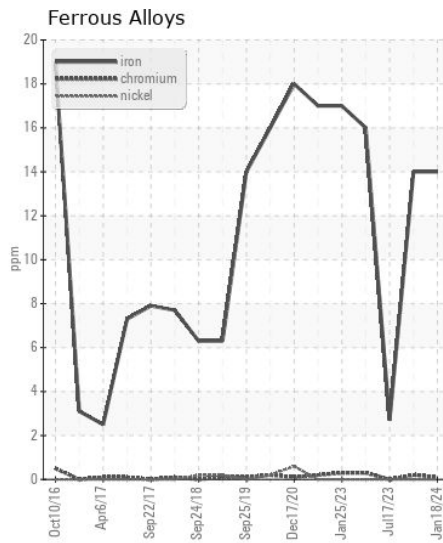
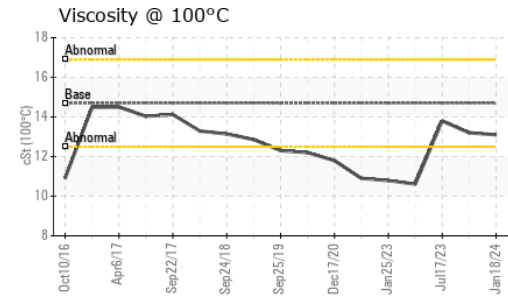
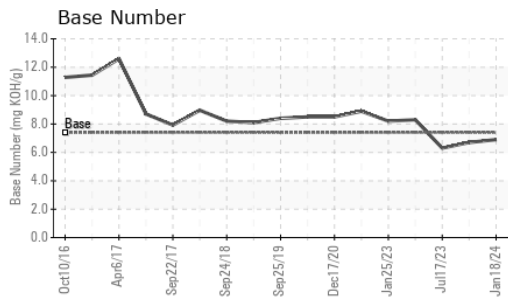
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	9	9	8
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Fuel		WC Method	>3.0	<1.0	<1.0	0.8
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	15.3	15.2	15.0
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

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		2	<1	1
Boron	ppm	ASTM D5185m		302	312	293
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		44	43	40
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		145	101	119
Calcium	ppm	ASTM D5185m		2343	2305	2238
Phosphorus	ppm	ASTM D5185m	1000	788	689	697
Zinc	ppm	ASTM D5185m	1090	926	829	796
Sulfur	ppm	ASTM D5185m		3267	3259	3276
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.2	7.2	7.3
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	6.9	6.7	6.3
Visc @ 100°C	cSt	ASTM D445	14.7	13.1	13.2	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0052032 **Received** : 19 Jan 2024
Lab Number : 06065413 **Diagnosed** : 22 Jan 2024
Unique Number : 10836795 **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)

MARITIME COMPANY
 3802 PORT RIVER RD
 PASCAGOULA, MS
 US 39567

Contact: TERRY SCUDDER
 terry.scudder@signetmaritime.com

T:
 F: (228)769-0629