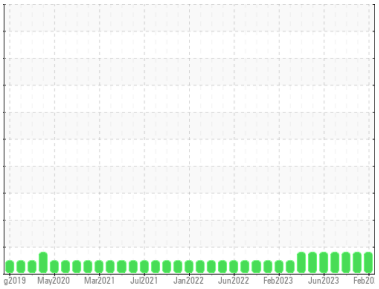
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Galveston Bay
Machine Id
[Galveston Bay] Oil - Port Reduction Gear
Component
Port Reduction Gear
Fluid
DIESEL ENGINE OIL SAE 40 (35 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0769374**	WC0769371	WC0735337
Sample Date		Client Info		**28 Feb 2024**	06 Dec 2023	08 Nov 2023
Machine Age	hrs	Client Info		**7009**	7009	21261
Oil Age	hrs	Client Info		**5376**	5376	10539
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

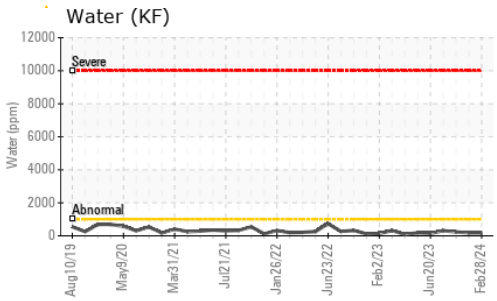
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	**21**	10	10
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**2**	0	<1
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>50	▲ **300**	▲ 131	▲ 118
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

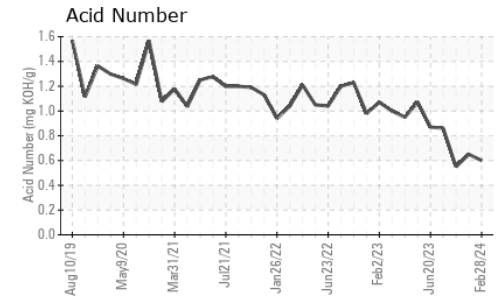
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**26**	16	17
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**70**	45	42
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	450	**1018**	635	643
Calcium	ppm	ASTM D5185m	3000	**1639**	1043	1004
Phosphorus	ppm	ASTM D5185m	1150	**1229**	777	784
Zinc	ppm	ASTM D5185m	1350	**1458**	901	909
Sulfur	ppm	ASTM D5185m	4250	**4115**	2621	2432

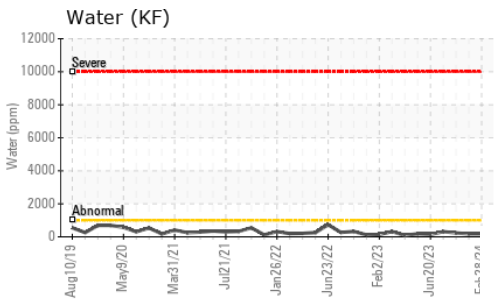
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**4**	2	2
Sodium	ppm	ASTM D5185m	>216	**12**	8	8
Potassium	ppm	ASTM D5185m	>20	**3**	0	0
Water	%	ASTM D6304	>0.1	**0.017**	0.017	0.023
ppm Water	ppm	ASTM D6304	>1000	**178**	178	236.7

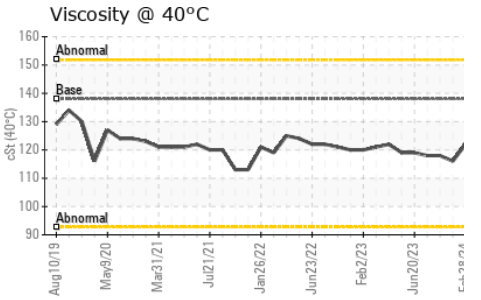
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.60**	0.65	0.55

OIL ANALYSIS REPORT







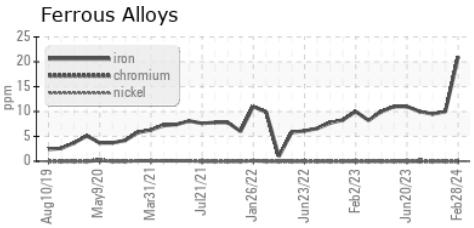


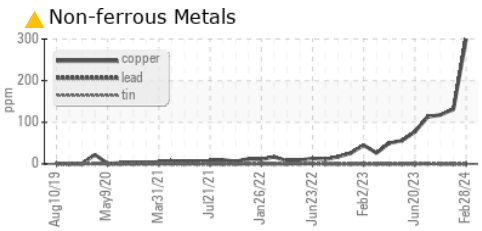
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

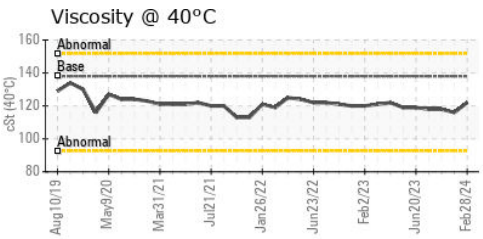
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	138	**122**	116	118

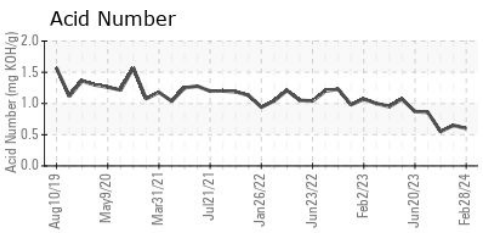
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0769374
Lab Number : 06130702
Unique Number : 10950167
Test Package : IND 2 (Additional Tests: KF)

Received : 27 Mar 2024
Tested : 28 Mar 2024
Diagnosed : 30 Mar 2024 - Don Baldridge

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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