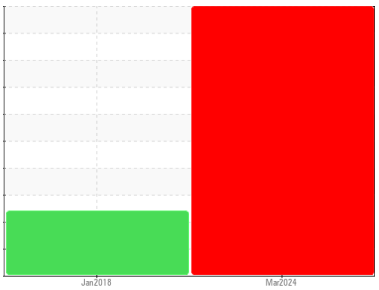
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
CLARK CLARK FORK LIFT
Component
Liquid Petroleum Gas
Fluid
GASOLINE ENGINE OIL SAE 5W30 (5 QTS)

DIAGNOSIS

▲ Recommendation
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

▲ Wear
Piston, ring and cylinder wear is indicated.

▲ Contamination
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0871806**	WCM2295550	---
Sample Date		Client Info		**14 Mar 2024**	16 Jan 2018	---
Machine Age	hrs	Client Info		**7543**	4866	---
Oil Age	hrs	Client Info		**500**	0	---
Oil Changed		Client Info		**N/A**	Changed	---
Sample Status				**SEVERE**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	▲ **220**	77	---
Chromium	ppm	ASTM D5185m	>10	▲ **37**	▲ 27	---
Nickel	ppm	ASTM D5185m	>5	**<1**	<1	---
Titanium	ppm	ASTM D5185m		**1**	<1	---
Silver	ppm	ASTM D5185m	>5	**0**	0	---
Aluminum	ppm	ASTM D5185m	>20	● **37**	18	---
Lead	ppm	ASTM D5185m	>40	**5**	6	---
Copper	ppm	ASTM D5185m	>300	**5**	1	---
Tin	ppm	ASTM D5185m	>10	**3**	12	---
Antimony	ppm	ASTM D5185m		**---**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	75	**14**	8	---
Barium	ppm	ASTM D5185m	5	**<1**	<1	---
Molybdenum	ppm	ASTM D5185m	100	**80**	59	---
Manganese	ppm	ASTM D5185m		**3**	2	---
Magnesium	ppm	ASTM D5185m	12	**383**	20	---
Calcium	ppm	ASTM D5185m	2100	**1542**	2476	---
Phosphorus	ppm	ASTM D5185m	650	**571**	611	---
Zinc	ppm	ASTM D5185m	850	**690**	785	---
Sulfur	ppm	ASTM D5185m	2500	**3406**	3264	---

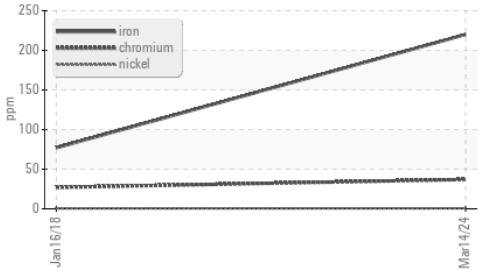
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	▲ **52**	▲ 36	---
Sodium	ppm	ASTM D5185m		**10**	9	---
Potassium	ppm	ASTM D5185m	>20	**5**	6	---
Water	%	ASTM D6304	>0.1	▲ **0.228**	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ **2280**	---	---
Glycol	%	*ASTM D2982		**0.0**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0	---
Nitration	Abs/cm	*ASTM D7624	>20	**10.6**	9.	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**27.7**	21.	---

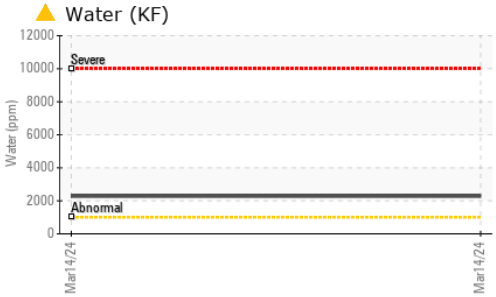
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.3**	11.	---
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.76**	1.016	---

OIL ANALYSIS REPORT

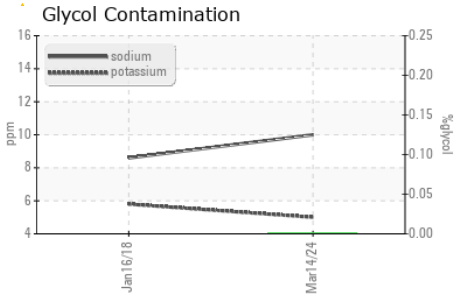
Ferrous Alloys



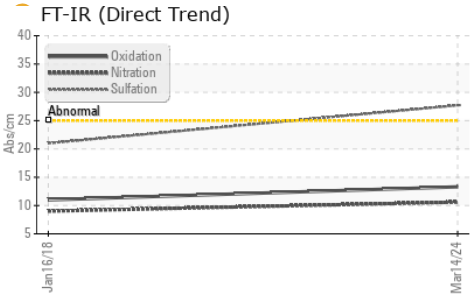
Water (KF)



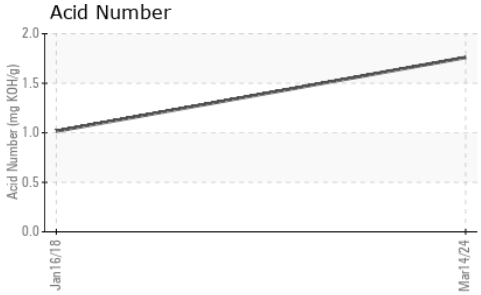
Glycol Contamination



FT-IR (Direct Trend)



Acid Number

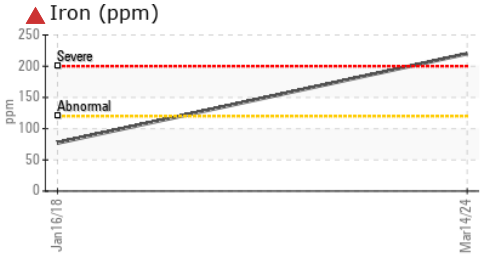


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.1	**0.2%**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

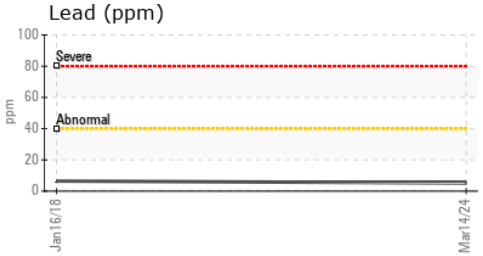
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	**10.4**	10.51	---

GRAPHS

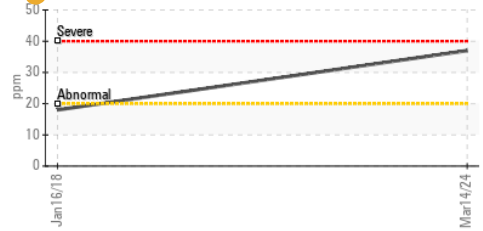
Iron (ppm)



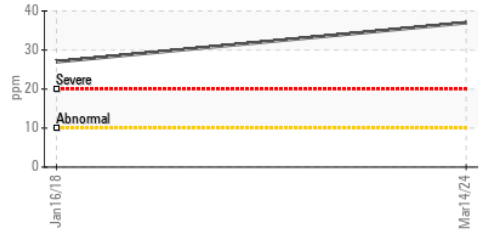
Lead (ppm)



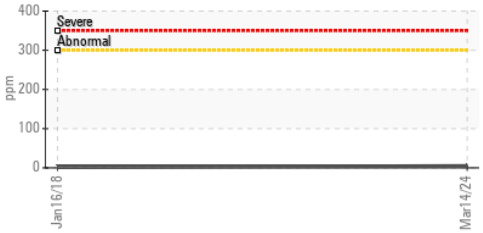
Aluminum (ppm)



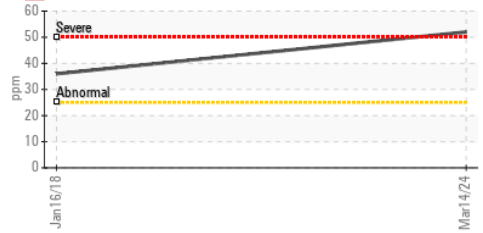
Chromium (ppm)



Copper (ppm)

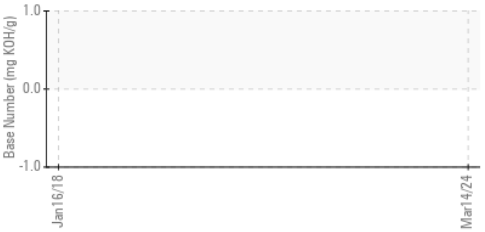


Silicon (ppm)



Viscosity @ 100°C

Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0871806
Lab Number : 06149579
Unique Number : 10979657
Test Package : MOB 2 (Additional Tests: Glycol, KF)

Received : 15 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 18 Apr 2024 - Jonathan Hester

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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Report Id: ALLGRELF [WUSCAR] 06149579 (Generated: 04/18/2024 12:19:52) Rev: 1
Contact/Location: SERVICE MANAGER - ALLGRELF