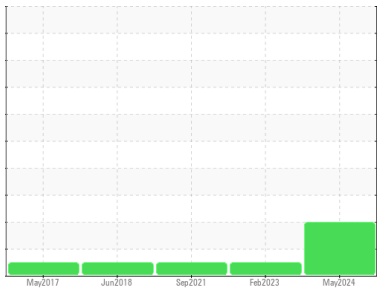
OIL ANALYSIS REPORT

Area
OKLAHOMA/102/EG - BACKHOE LOADER
Machine Id
53.513L [OKLAHOMA^102^EG - BACKHOE LOADER]
Component
Hydraulic System
Fluid
MOBIL MOBILTRANS AST 30 (--- GAL)

Sample Rating Trend



WATER

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. (Customer Sample Comment: 5634 hours)

Wear
All component wear rates are normal.

Contamination
Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present 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		**WC0864414**	WC0603280	WC0622954
Sample Date		Client Info		**03 May 2024**	04 Feb 2023	24 Sep 2021
Machine Age	hrs	Client Info		**5634**	4697	3420
Oil Age	hrs	Client Info		**3420**	2280	500
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**9**	8	6
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>10	**6**	4	4
Lead	ppm	ASTM D5185m	>10	**4**	5	3
Copper	ppm	ASTM D5185m	>75	**5**	2	1
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**29**	29	24
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**2**	3	<1
Manganese	ppm	ASTM D5185m		**1**	<1	<1
Magnesium	ppm	ASTM D5185m		**44**	41	13
Calcium	ppm	ASTM D5185m		**2522**	2320	2372
Phosphorus	ppm	ASTM D5185m		**922**	855	872
Zinc	ppm	ASTM D5185m		**1158**	1085	1128
Sulfur	ppm	ASTM D5185m		**4716**	4108	3644

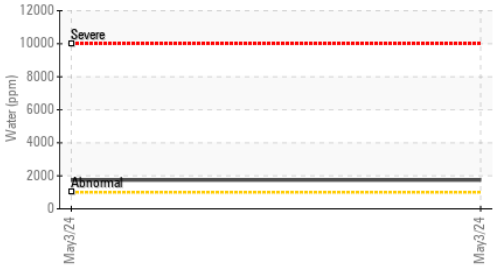
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**15**	12	9
Sodium	ppm	ASTM D5185m		**4**	2	2
Potassium	ppm	ASTM D5185m	>20	**<1**	4	2
Water	%	ASTM D6304	>0.1	▲ **0.174**	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ **1740**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	8250	3804
Particles >6µm		ASTM D7647	>2500	**---**	1685	349
Particles >14µm		ASTM D7647	>640	**---**	98	19
Particles >21µm		ASTM D7647	>160	**---**	24	5
Particles >38µm		ASTM D7647	>40	**---**	2	0
Particles >71µm		ASTM D7647	>10	**---**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/18/16	**---**	20/18/14	19/16/11

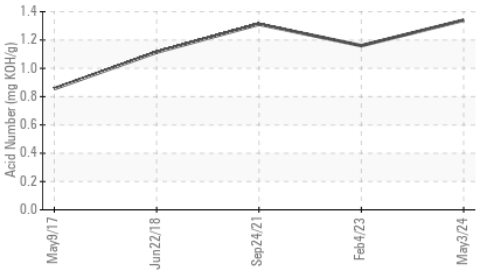
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.34**	1.16	1.312

OIL ANALYSIS REPORT

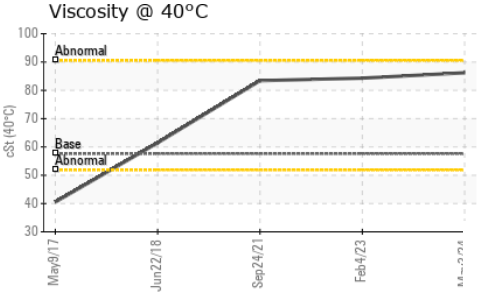
Water (KF)



Acid Number

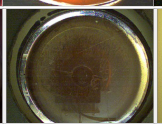


Viscosity @ 40°C



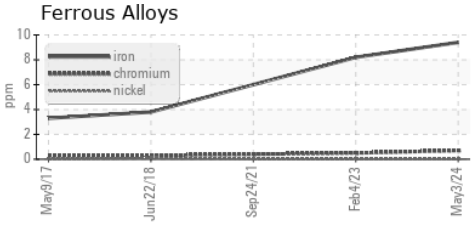
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt	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	**0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.6	**86.2**	84.3	83.4

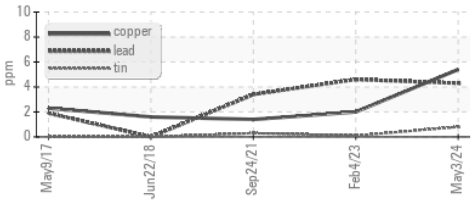
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

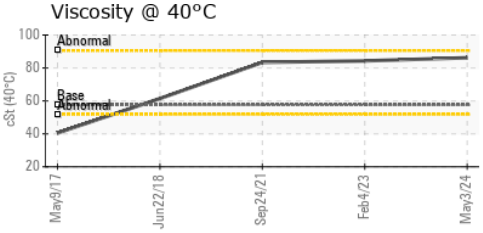
Ferrous Alloys



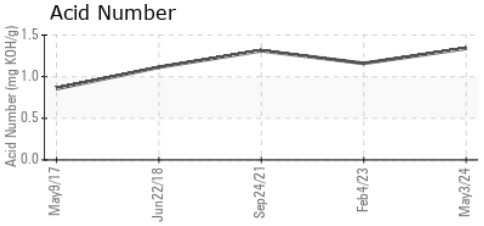
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0864414
Lab Number : 06177082
Unique Number : 11023135
Test Package : CONST (Additional Tests: KF)

Received : 13 May 2024
Tested : 17 May 2024
Diagnosed : 17 May 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)

SHERWOOD CONSTRUCTION CO INC
3219 WEST MAY ST
WICHITA, KS
US 67213
Contact: DOUG KING
doug.king@sherwood.net
T: (316)617-3161
F: x:

Report Id: SHEWIC [WUSCAR] 06177082 (Generated: 05/17/2024 08:17:55) Rev: 1

Submitted By: LOUIS BRESHEARS