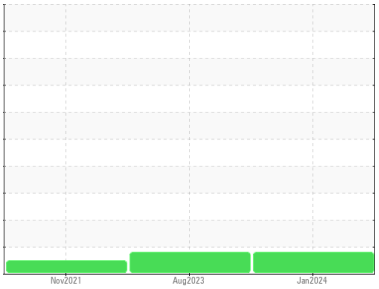
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
OKLAHOMA/105/COOL - Loader
Machine Id
46.102L [OKLAHOMA^105^COOL - Loader]
Component
Hydraulic System
Fluid
MOBIL DELVAC 1300 SUPER15W40 (11 GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) 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		**WC0886955**	WC0834152	WC0623097
Sample Date		Client Info		**29 Jan 2024**	01 Aug 2023	09 Nov 2021
Machine Age	hrs	Client Info		**14086**	13113	10768
Oil Age	hrs	Client Info		**500**	2345	2000
Oil Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**ABNORMAL**	ATTENTION	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**12**	13	33
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	0
Aluminum	ppm	ASTM D5185m	>10	**2**	2	<1
Lead	ppm	ASTM D5185m	>10	**1**	0	<1
Copper	ppm	ASTM D5185m	>75	**9**	9	10
Tin	ppm	ASTM D5185m	>10	**2**	1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

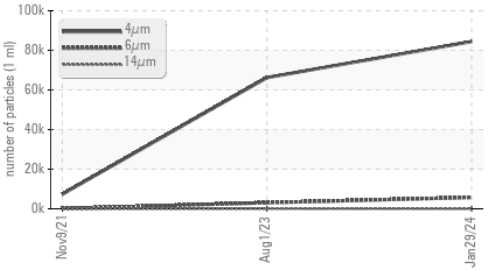
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**89**	99	12
Barium	ppm	ASTM D5185m	0	**0**	<1	0
Molybdenum	ppm	ASTM D5185m	0	**<1**	1	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	0	**24**	25	6
Calcium	ppm	ASTM D5185m		**2993**	2970	939
Phosphorus	ppm	ASTM D5185m		**1060**	962	434
Zinc	ppm	ASTM D5185m		**1279**	1202	555
Sulfur	ppm	ASTM D5185m		**4405**	4707	3934

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**9**	11	6
Sodium	ppm	ASTM D5185m		**6**	5	0
Potassium	ppm	ASTM D5185m	>20	**4**	<1	<1

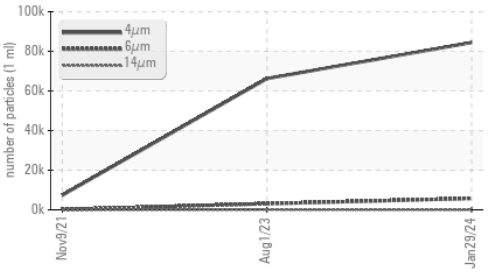
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**84436**	66240	7369
Particles >6µm		ASTM D7647	>2500	▲ **5757**	▲ 3103	112
Particles >14µm		ASTM D7647	>640	**29**	63	6
Particles >21µm		ASTM D7647	>160	**4**	21	2
Particles >38µm		ASTM D7647	>40	**0**	1	0
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/18/16	▲ **24/20/12**	▲ 23/19/13	20/14/10

OIL ANALYSIS REPORT

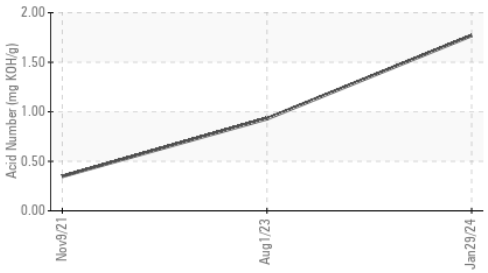
Particle Trend



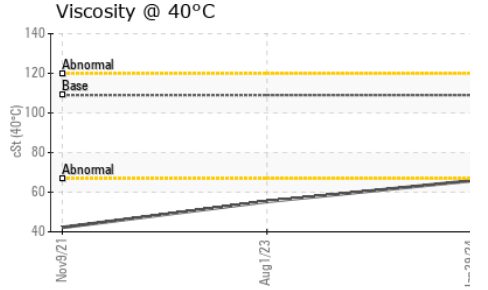
Particle Trend



Acid Number



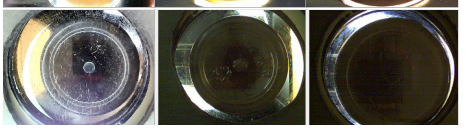
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.77**	0.93	0.348

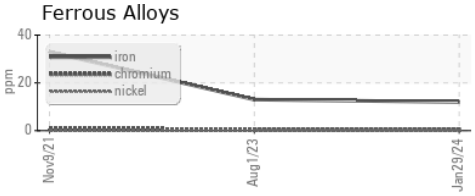
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	109	**65.8**	55.3	42.2

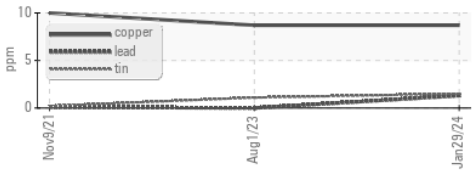
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

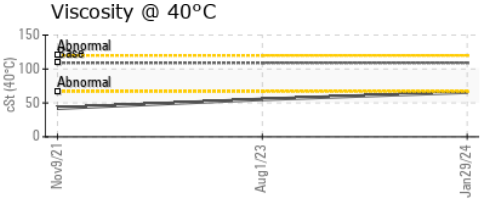
Ferrous Alloys



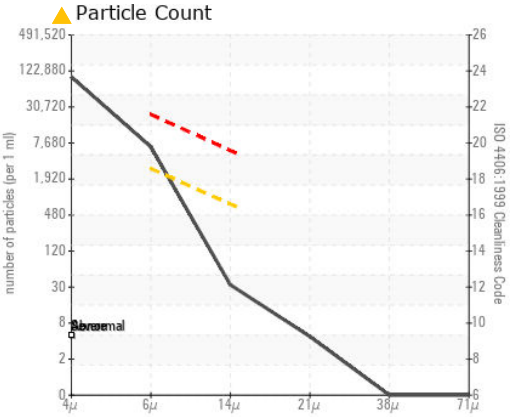
Non-ferrous Metals



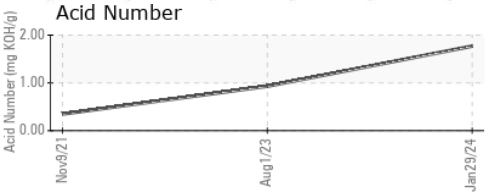
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886955
Lab Number : 06076816
Unique Number : 10858907
Test Package : CONST

Received : 01 Feb 2024
Tested : 02 Feb 2024
Diagnosed : 02 Feb 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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Report Id: SHEWIC [WUSCAR] 06076816 (Generated: 02/08/2024 11:50:36) Rev: 1

Submitted By: SHAWN SOUTH