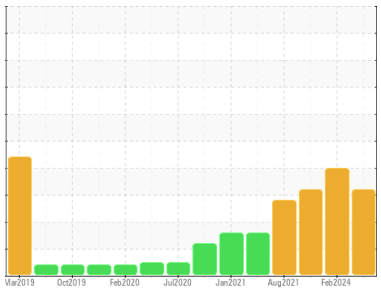
OIL ANALYSIS REPORT

Area
OKLAHOMA/3/EG - TRUCK-OFF-HWY-HEAVY HAUL
Machine Id
69.11 [OKLAHOMA^3^EG - TRUCK-OFF-HWY-HEAVY HAUL]
Component
Steering
Fluid
MOBIL MOBILTRANS AST 30 (--- GAL)

Sample Rating Trend



DIRT

DIAGNOSIS

Recommendation
We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. 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 fluid. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0935190**	WC0886873	WC0746232
Sample Date		Client Info		**12 May 2024**	20 Feb 2024	11 Nov 2022
Machine Age	hrs	Client Info		**10842**	10382	7993
Oil Age	hrs	Client Info		**5673**	5673	3238
Oil Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>60	**7**	8	8
Chromium	ppm	ASTM D5185m	>12	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>6	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>4	**14**	14	14
Lead	ppm	ASTM D5185m	>12	**0**	<1	1
Copper	ppm	ASTM D5185m	>30	**3**	1	1
Tin	ppm	ASTM D5185m		**<1**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

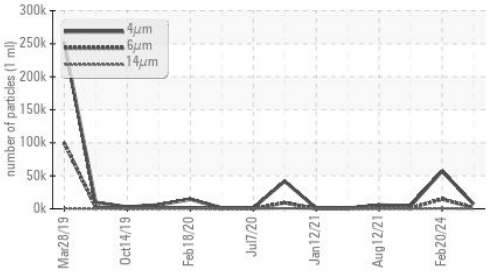
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**59**	39	30
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**21**	21	16
Calcium	ppm	ASTM D5185m		**3172**	2883	3167
Phosphorus	ppm	ASTM D5185m		**1038**	1004	998
Zinc	ppm	ASTM D5185m		**1270**	1217	1234
Sulfur	ppm	ASTM D5185m		**5518**	4665	5940

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>10	**31**	31	30
Sodium	ppm	ASTM D5185m		**6**	6	4
Potassium	ppm	ASTM D5185m	>20	**4**	5	3

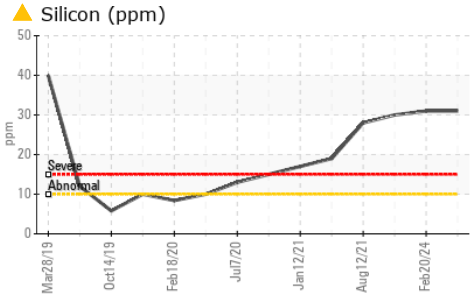
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**7005**	57026	4363
Particles >6µm		ASTM D7647	>640	**1789**	14581	1114
Particles >14µm		ASTM D7647	>80	**43**	477	61
Particles >21µm		ASTM D7647	>20	**8**	81	6
Particles >38µm		ASTM D7647	>4	**0**	1	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/16/13	**20/18/13**	23/21/16	19/17/13

OIL ANALYSIS REPORT

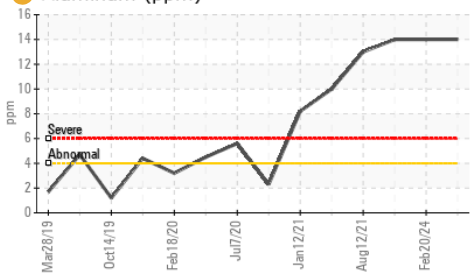
Particle Trend



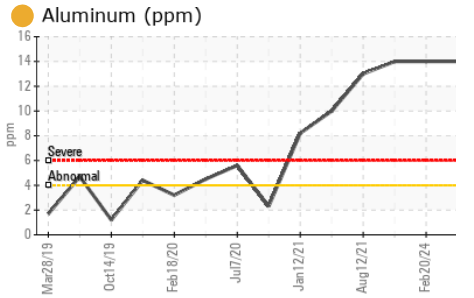
Silicon (ppm)



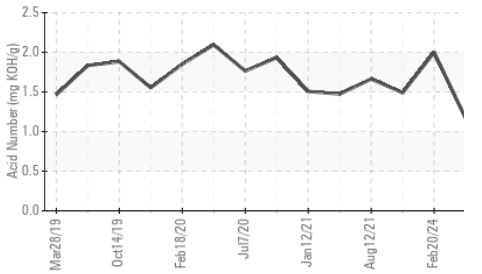
Aluminum (ppm)



Aluminum (ppm)



Acid Number



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.17**	2.00	1.49

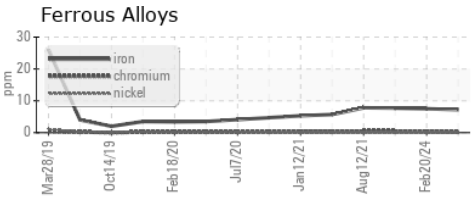
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual		**NEG**	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	**80.7**	86.4	93.8

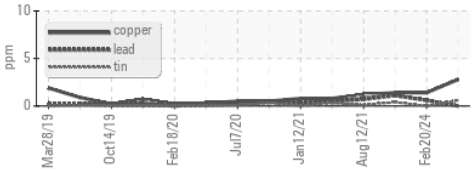
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

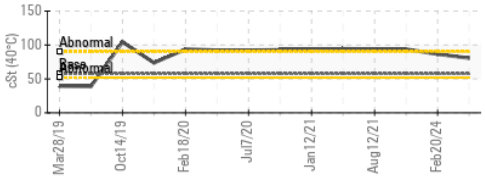
Ferrous Alloys



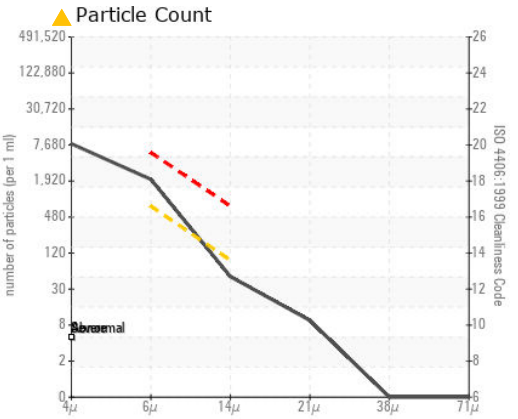
Non-ferrous Metals



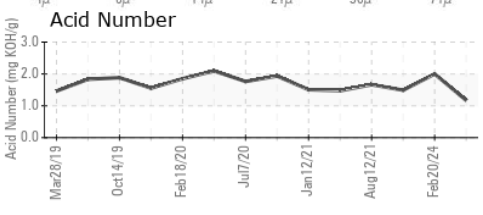
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0935190
Lab Number : 06184910
Unique Number : 11036236
Test Package : CONST (Additional Tests: PrtCount)

Received : 20 May 2024
Tested : 22 May 2024
Diagnosed : 22 May 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] 06184910 (Generated: 05/22/2024 17:37:37) Rev: 1

Submitted By: GARRETT ADAMS