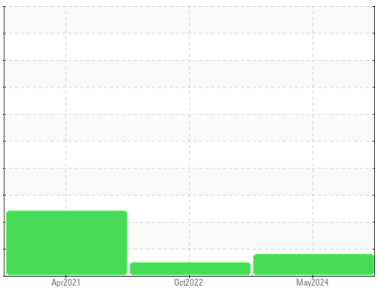
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
80-217
Component
Front Right Final Drive
Fluid
CONOCO PHILLIPS POWERTRAN (--- GAL)

DIAGNOSIS

Recommendation
The oil 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
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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0766479**	WC0619516	WC0548868
Sample Date		Client Info		**06 May 2024**	18 Oct 2022	02 Apr 2021
Machine Age	hrs	Client Info		**6923**	5863	4870
Oil Age	hrs	Client Info		**6923**	730	1000
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	**113**	190	223
Chromium	ppm	ASTM D5185m	>10	**1**	3	3
Nickel	ppm	ASTM D5185m	>10	**0**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	1
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>25	**2**	6	19
Lead	ppm	ASTM D5185m	>25	**2**	0	<1
Copper	ppm	ASTM D5185m	>50	**78**	11	30
Tin	ppm	ASTM D5185m	>10	**<1**	<1	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**124**	99	13
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**2**	<1	<1
Manganese	ppm	ASTM D5185m		**2**	2	3
Magnesium	ppm	ASTM D5185m		**32**	22	9
Calcium	ppm	ASTM D5185m		**3683**	2913	92
Phosphorus	ppm	ASTM D5185m		**1208**	943	228
Zinc	ppm	ASTM D5185m		**1484**	1132	93
Sulfur	ppm	ASTM D5185m		**4888**	6715	14967

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	**29**	61	151
Sodium	ppm	ASTM D5185m		**7**	6	2
Potassium	ppm	ASTM D5185m	>20	**1**	0	6

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	MODER
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	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

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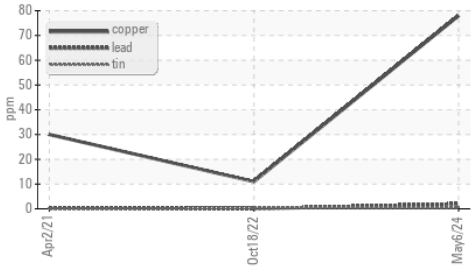
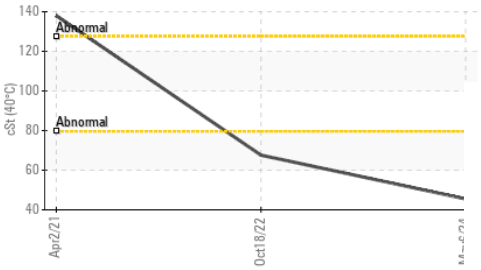
Non-ferrous Metals



Viscosity @ 40°C

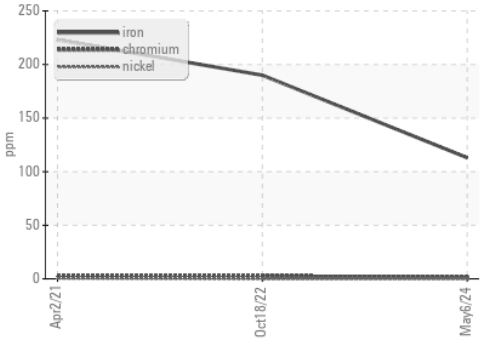


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**45.5**	67.6	138

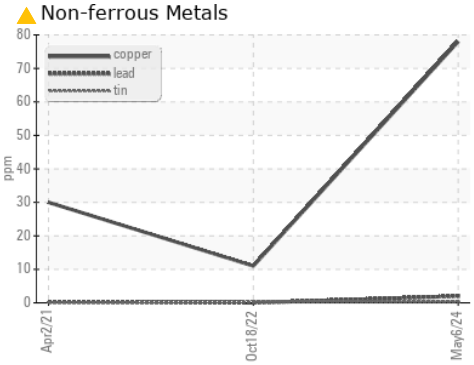
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

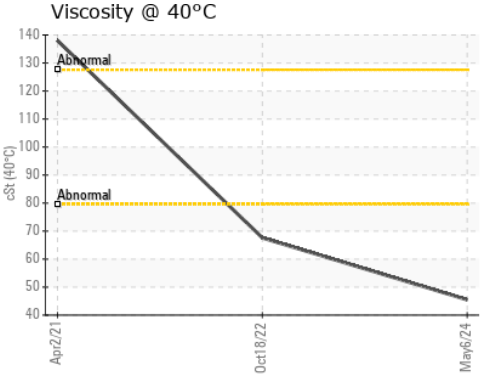
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0766479
Lab Number : 06181842
Unique Number : 11033168
Test Package : CONST

Received : 16 May 2024
Tested : 17 May 2024
Diagnosed : 20 May 2024 - Sean Felton

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)

MANHATTAN ROAD AND BRIDGE
5601 S 122ND E AVE
TULSA, OK
US 74146
Contact: BEN CALDWELL
kevin.marson@wearcheck.com
T: (918)728-5749
F:

Report Id: MANTUL [WUSCAR] 06181842 (Generated: 05/20/2024 13:16:42) Rev: 1

Submitted By: RICHARD PUGH