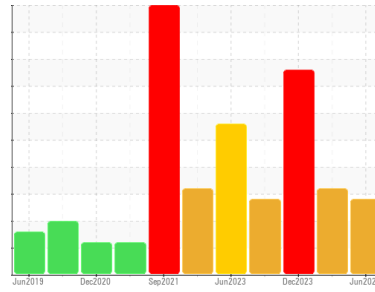




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
CAHE-HRS552151 WELLHEAD HPU RETURN
 Component
Hydraulic System
 Fluid
MOBIL GLYGOYLE 22 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Fluid Condition

Viscosity of sample indicates oil is within ISO 10 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PP13846498	PP13974640	PP13846498
Sample Date	Client Info		19 Jun 2024	18 Mar 2024	13 Dec 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<1	2	3
Chromium	ppm	ASTM D5185(m)	>10	0	0	<1
Nickel	ppm	ASTM D5185(m)	>10	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>10	0	0	<1
Lead	ppm	ASTM D5185(m)	>20	0	0	<1
Copper	ppm	ASTM D5185(m)	>20	0	0	<1
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)	● 2280	● 2621	● 3074	
Molybdenum	ppm	ASTM D5185(m)	0	0	0	
Manganese	ppm	ASTM D5185(m)	0	0	0	
Magnesium	ppm	ASTM D5185(m)	<1	<1	<1	
Calcium	ppm	ASTM D5185(m)	3	7	8	
Phosphorus	ppm	ASTM D5185(m)	● 228	● 252	● 286	
Zinc	ppm	ASTM D5185(m)	<1	1	2	
Sulfur	ppm	ASTM D5185(m)	526	661	● 905	
Lithium	ppm	ASTM D5185(m)	<1	<1	<1	

CONTAMINANTS

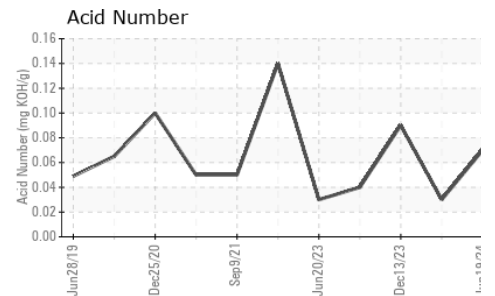
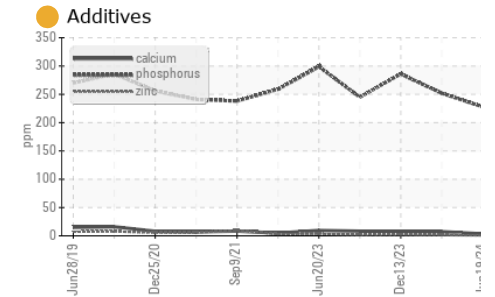
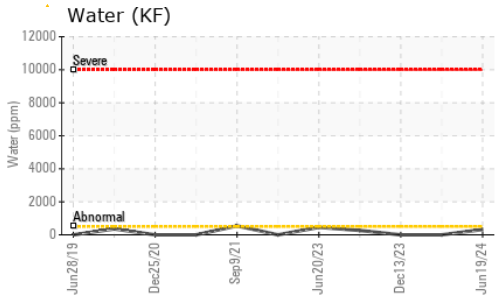
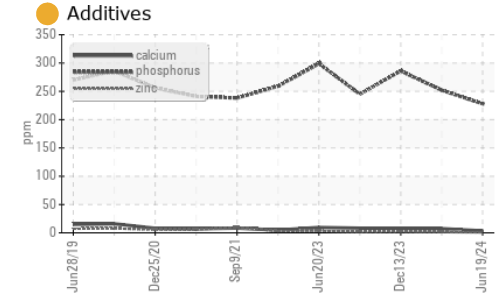
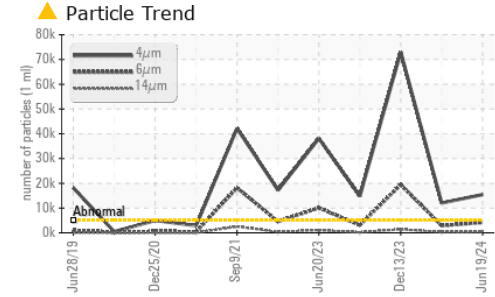
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	2	0	2
Sodium	ppm	ASTM D5185(m)		0	2	5
Potassium	ppm	ASTM D5185(m)	>20	1	<1	2
Water	%	ASTM D6304*	>0.05	0.032	---	---
ppm Water	ppm	ASTM D6304*	>500	321	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 15447	▲ 12032	▲ 72961
Particles >6µm	ASTM D7647	>1300	▲ 4143	▲ 2863	▲ 19444
Particles >14µm	ASTM D7647	>160	● 285	● 294	▲ 1394
Particles >21µm	ASTM D7647	>40	43	▲ 83	▲ 317
Particles >38µm	ASTM D7647	>10	2	3	13
Particles >71µm	ASTM D7647	>3	0	1	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/15	▲ 21/19/15	▲ 23/21/18



OIL ANALYSIS REPORT

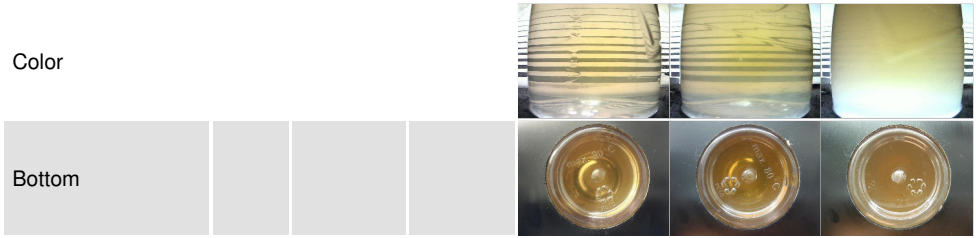


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.07	0.03	0.09

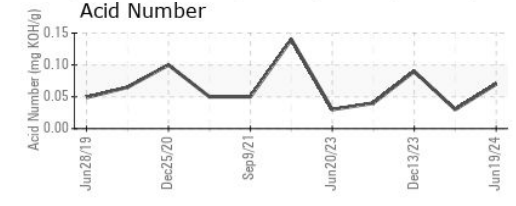
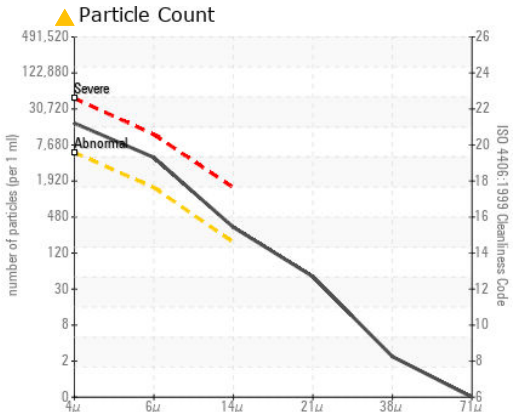
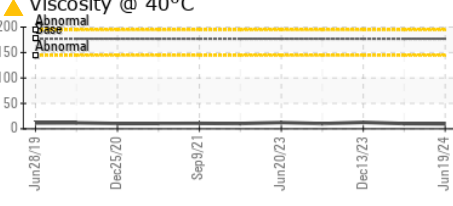
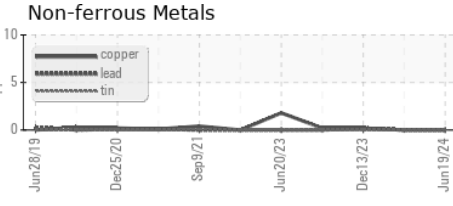
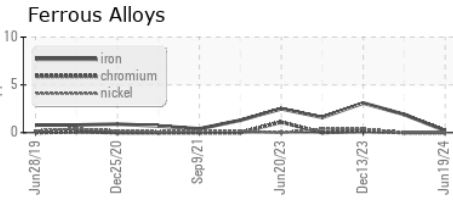
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	177	▲ 9.8	▲ 10.2	▲ 12.7

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP13846498
Lab Number : 02647951
Unique Number : 5813503
Test Package : MAR 2 (Additional Tests: KF, TAN Man)
Received : 15 Jul 2024
Tested : 21 Jul 2024
Diagnosed : 21 Jul 2024 - Kevin Marson

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 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.