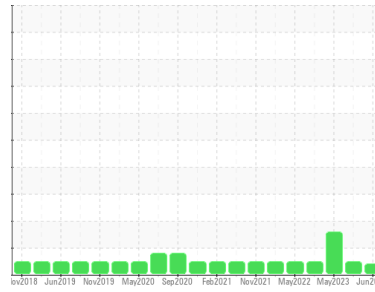




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
C-415102-A

Component
Compressor

Fluid
ROYAL PURPLE SYNFILM GT 100 (100 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		RP0035222	RP06033467	RP0033762
Sample Date	Client Info		04 Jun 2024	12 Dec 2023	18 May 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	Filtered
Sample Status			MARGINAL	NORMAL	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	0	<1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	0	0
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >50	0	1	2
Tin	ppm	ASTM D5185m >15	0	<1	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	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 90	87	94	91
Calcium	ppm	ASTM D5185m	1	<1	4
Phosphorus	ppm	ASTM D5185m 35	3	3	7
Zinc	ppm	ASTM D5185m	2	0	1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	<1	<1
Sodium	ppm	ASTM D5185m	<1	2	2
Potassium	ppm	ASTM D5185m >20	0	<1	<1
Water	%	ASTM D6304 >0.1	0.022	0.017	0.009
ppm Water	ppm	ASTM D6304 >1000	225	173	99.1

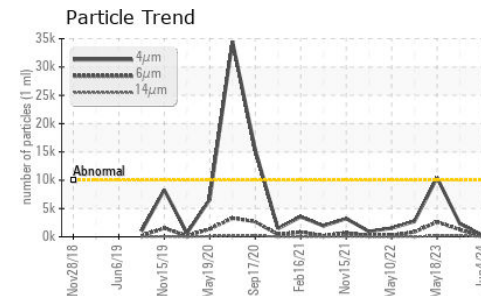
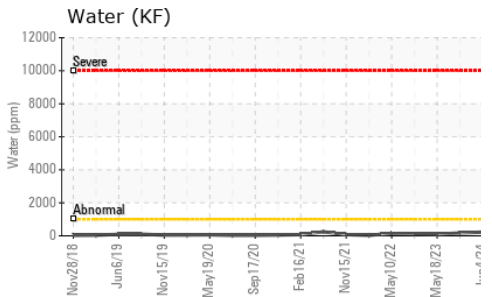
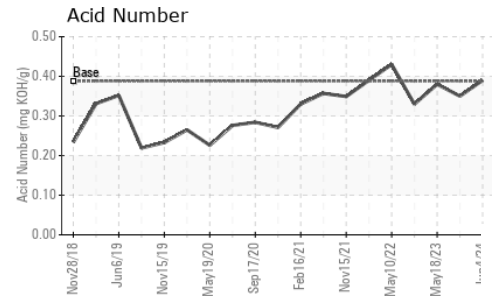
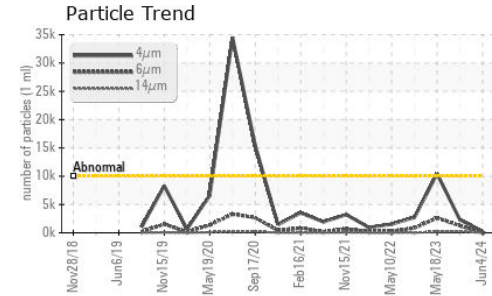
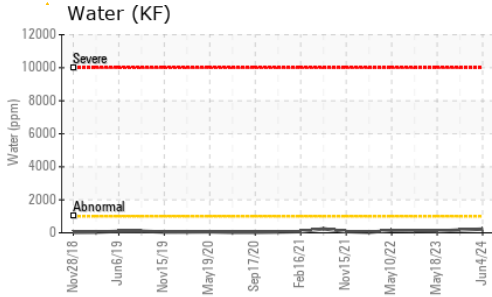
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	255	2297	10430
Particles >6µm	ASTM D7647	>2500	62	1251	2633
Particles >14µm	ASTM D7647	>320	9	213	184
Particles >21µm	ASTM D7647	>80	1	72	58
Particles >38µm	ASTM D7647	>20	0	11	2
Particles >71µm	ASTM D7647	>4	1	1	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	15/13/10	18/17/15	21/19/15

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.388	0.39	0.35	0.38

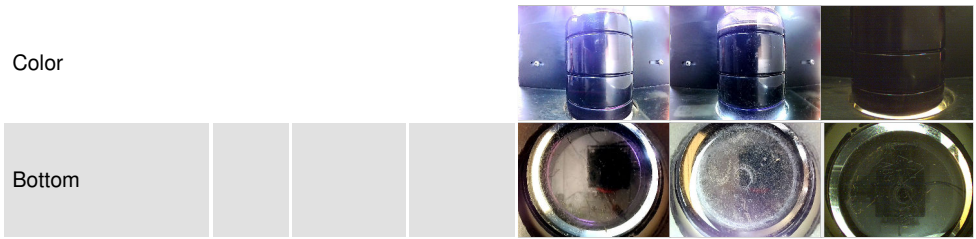
OIL ANALYSIS REPORT



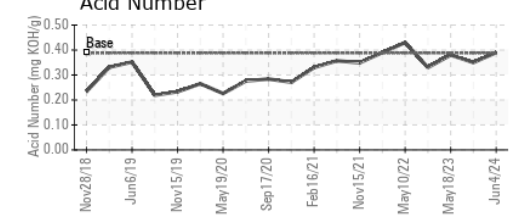
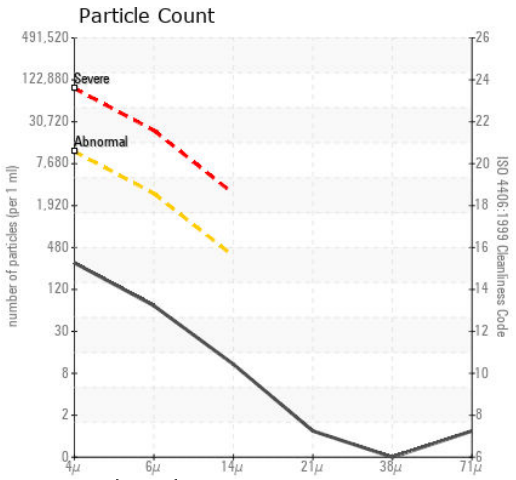
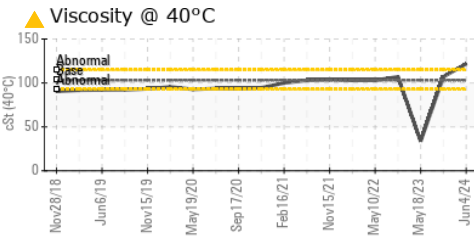
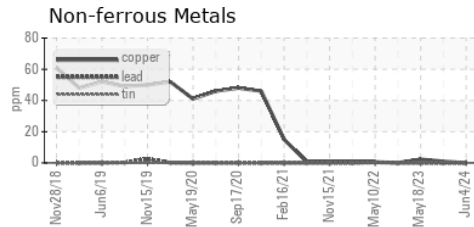
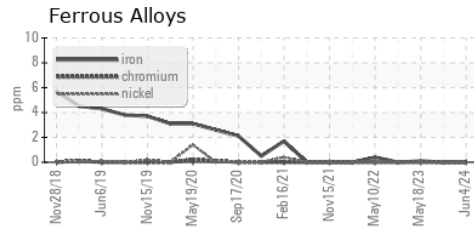
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	103	▲ 121.8	107

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0035222 **Received** : 05 Jun 2024
Lab Number : 06200252 **Tested** : 13 Jun 2024
Unique Number : 11062375 **Diagnosed** : 13 Jun 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: PrtCount)

CALUMET MONTANA REFINERY
 1807 3RD ST NW
 GREAT FALLS, MT
 US 59404

Contact: CODY MCRADY
 brian.schoechert@clmt.com
 T: (406)454-9854
 F:
 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)