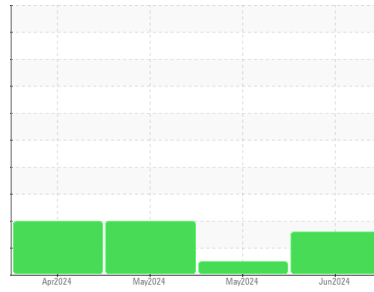


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
LEROI 112816 (S/N SC260231)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please note that this is a corrected copy.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	TO90004152	TO90004075	TO90004231
Sample Date	Client Info	03 Jun 2024	24 May 2024	01 May 2024
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	Changed	N/A
Sample Status		ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >70	25	1	2
Chromium	ppm	ASTM D5185m >10	<1	0	<1
Nickel	ppm	ASTM D5185m	0	<1	<1
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >3	<1	<1	2
Lead	ppm	ASTM D5185m >4	1	0	<1
Copper	ppm	ASTM D5185m >20	<1	0	<1
Tin	ppm	ASTM D5185m >3	2	2	<1
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	0	7	0
Barium	ppm	ASTM D5185m 0	0	<1	1
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m 0	0	2	<1
Calcium	ppm	ASTM D5185m 0	0	6	4
Phosphorus	ppm	ASTM D5185m 0	18	29	73
Zinc	ppm	ASTM D5185m 0	0	11	4
Sulfur	ppm	ASTM D5185m 0	382	642	436

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >45	1	<1	4
Sodium	ppm	ASTM D5185m	0	4	1
Potassium	ppm	ASTM D5185m >20	4	5	2
Water	%	ASTM D6304 >2.26	0.658	1.00	▲ 0.841
ppm Water	ppm	ASTM D6304 >22600	6588	10000	▲ 8410

FLUID CLEANLINESS

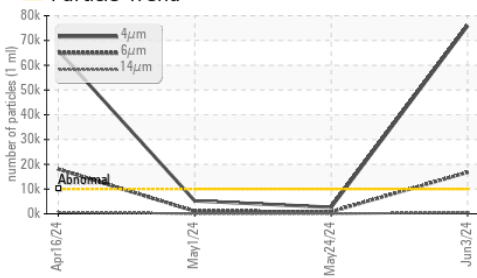
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ 75956	2635	5219
Particles >6µm	ASTM D7647 >2500	▲ 16749	844	1031
Particles >14µm	ASTM D7647 >320	● 483	45	24
Particles >21µm	ASTM D7647 >80	56	5	6
Particles >38µm	ASTM D7647 >20	2	1	3
Particles >71µm	ASTM D7647 >4	1	0	3
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 23/21/16	19/17/13	20/17/12

FLUID DEGRADATION

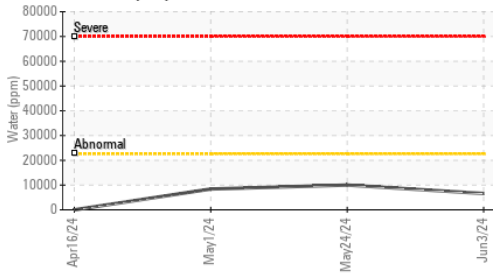
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.30	0.261	0.28

OIL ANALYSIS REPORT

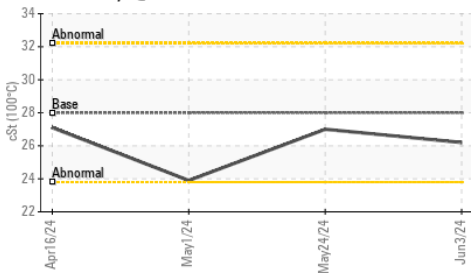
Particle Trend



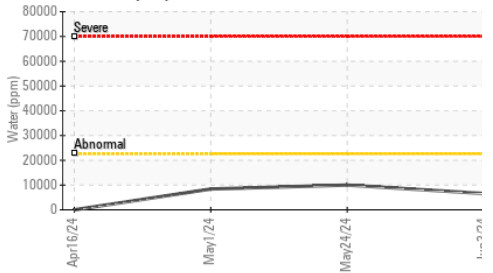
Water (KF)



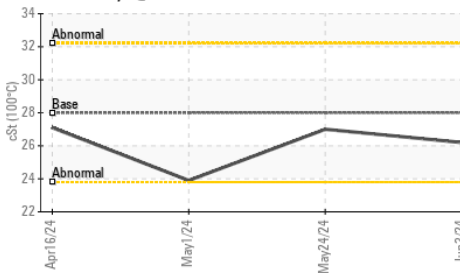
Viscosity @ 100°C



Water (KF)



Viscosity @ 100°C



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	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	162	154.8
Visc @ 100°C	cSt	ASTM D445	28	26.2	27.00
Viscosity Index (VI)	Scale	ASTM D2270	224	198	212

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

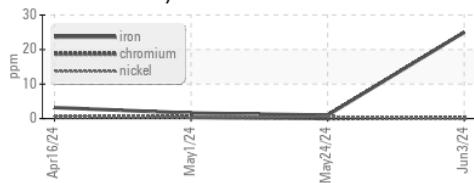


Bottom

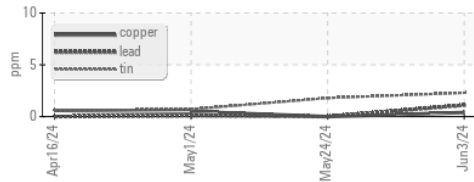


GRAPHS

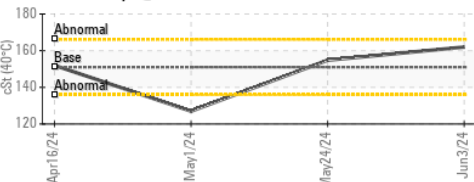
Ferrous Alloys



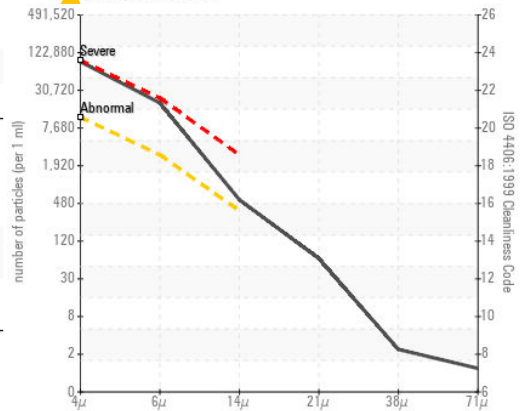
Non-ferrous Metals



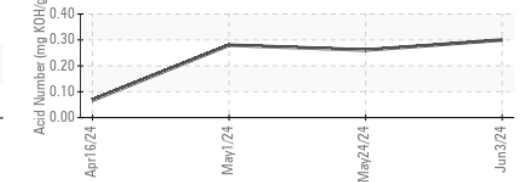
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO90004152

Lab Number : 06204751

Unique Number : 11072212

Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

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)

Received : 10 Jun 2024

Tested : 13 Jun 2024

Diagnosed : 13 Jun 2024 - Doug Bogart

CIMARRON ENERGY - CARLSBAD

4425 GRANDI RD, UNIT F

CARLSBAD, NM

UM 88220-8923

Contact: CARLOS LEAL

cleal@cimarron.com

T:

F: