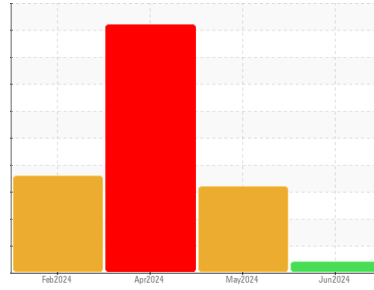


OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id
LEROI 112047 - HP3 (S/N 5680X89)
 Component
Compressor
 Fluid
CIMARRON HB-150 (70 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO90004080	TO90004234	TO90003976
Sample Date	Client Info			05 Jun 2024	02 May 2024	15 Apr 2024
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	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>60	4	35	▲ 152
Chromium	ppm	ASTM D5185m	>4	0	<1	1
Nickel	ppm	ASTM D5185m		<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	<1	2	3
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>30	0	<1	<1
Tin	ppm	ASTM D5185m	>15	2	1	4
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		<1	<1	<1

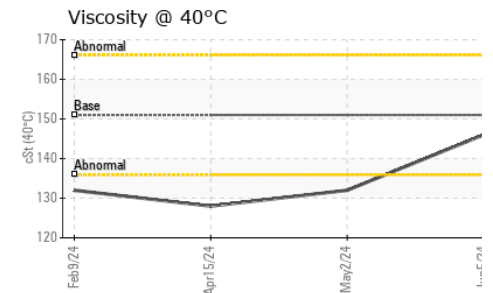
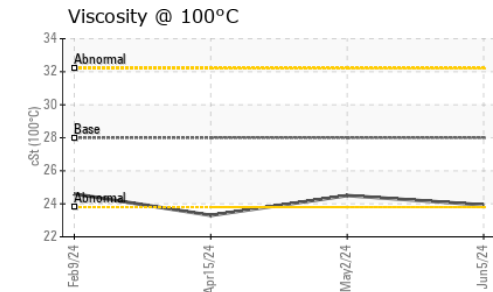
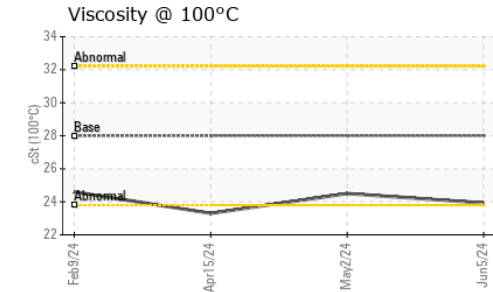
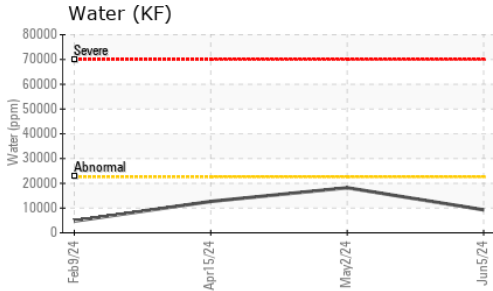
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	3	0	0
Barium	ppm	ASTM D5185m	0	0	1	<1
Molybdenum	ppm	ASTM D5185m	0	0	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	2	<1	<1
Calcium	ppm	ASTM D5185m	0	4	5	6
Phosphorus	ppm	ASTM D5185m	0	19	119	186
Zinc	ppm	ASTM D5185m	0	10	7	5
Sulfur	ppm	ASTM D5185m	0	263	1052	909

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	2	1	1
Sodium	ppm	ASTM D5185m		1	6	10
Potassium	ppm	ASTM D5185m	>20	5	2	3
Water	%	ASTM D6304	>2.26	0.928	▲ 1.82	▲ 1.267
ppm Water	ppm	ASTM D6304	>22600	9280	▲ 18200	▲ 12674

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	---	3671	4222
Particles >6µm		ASTM D7647	>2500	---	523	618
Particles >14µm		ASTM D7647	>320	---	23	24
Particles >21µm		ASTM D7647	>80	---	4	7
Particles >38µm		ASTM D7647	>20	---	0	1
Particles >71µm		ASTM D7647	>4	---	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	---	19/16/12	19/16/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.17	0.40	0.50

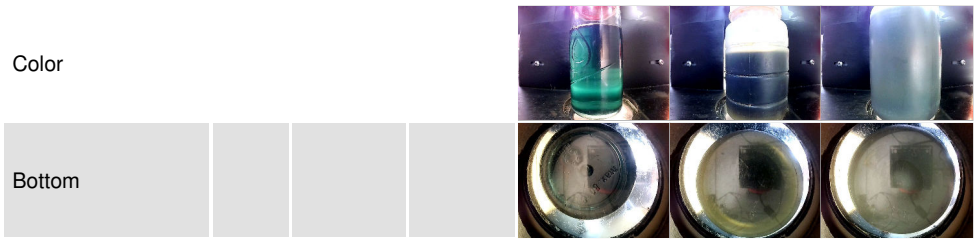
OIL ANALYSIS REPORT



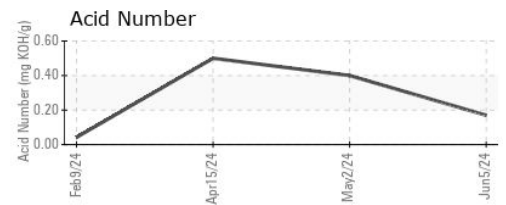
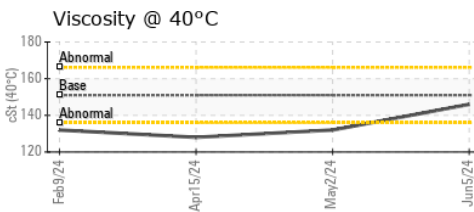
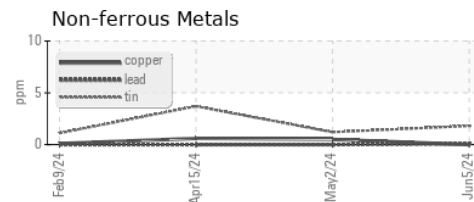
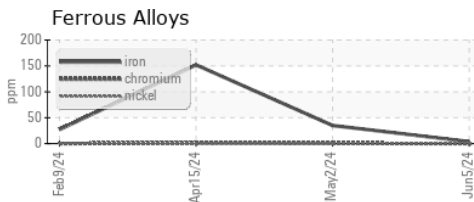
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	LIGHT
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	132	128
Visc @ 100°C	cSt	ASTM D445	28	24.5	23.3
Viscosity Index (VI)	Scale	ASTM D2270	224	219	213

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004080 **Received** : 10 Jun 2024
Lab Number : 06205573 **Tested** : 18 Jun 2024
Unique Number : 11073034 **Diagnosed** : 18 Jun 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

CIMARRON ENERGY - CARLSBAD
 4425 GRANDI RD, UNIT F
 CARLSBAD, NM
 UM 88220-8923
 Contact: CARLOS LEAL
 cleal@cimarron.com

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)

T:
F: