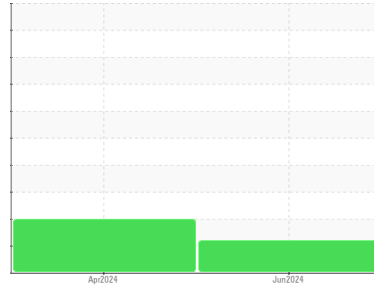


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**LEROI VRUOXY0029 (S/N LE13132)**  
 Component  
**Compressor**  
 Fluid  
**CIMARRON HB-150 (--- GAL)**

## DIAGNOSIS

### Recommendation

Oil and filter 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

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

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			<b>TO90004545</b>	TO90004182	---
Sample Date	Client Info			<b>13 Jun 2024</b>	16 Apr 2024	---
Machine Age	hrs	Client Info		<b>0</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	N/A	---
Sample Status				<b>ATTENTION</b>	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>16</b>	40	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m		<b>0</b>	1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	1	---
Copper	ppm	ASTM D5185m	>50	<b>0</b>	1	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	1	---

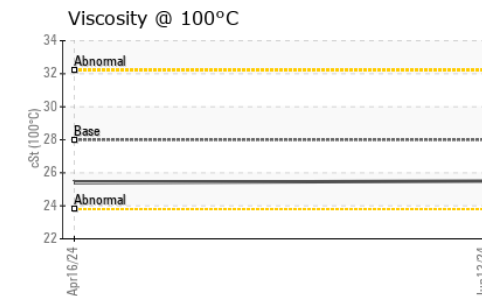
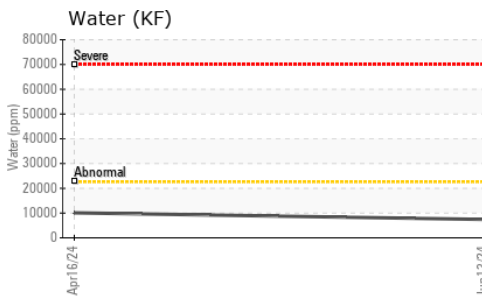
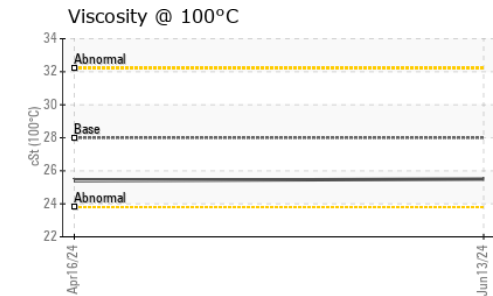
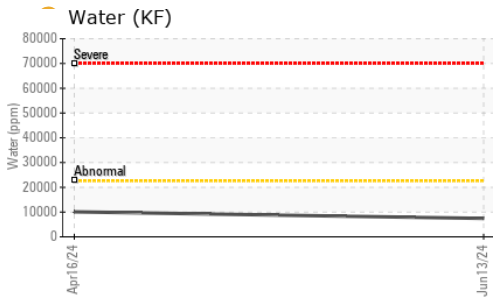
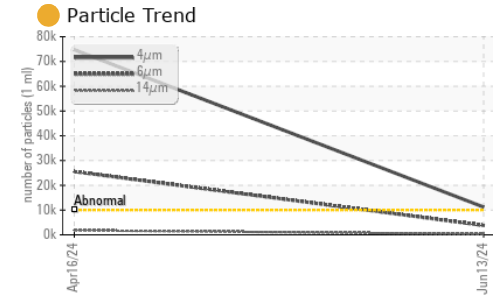
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	1	---
Manganese	ppm	ASTM D5185m		<b>0</b>	1	---
Magnesium	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Calcium	ppm	ASTM D5185m	0	<b>0</b>	5	---
Phosphorus	ppm	ASTM D5185m	0	<b>11</b>	55	---
Zinc	ppm	ASTM D5185m	0	<b>0</b>	3	---
Sulfur	ppm	ASTM D5185m	0	<b>362</b>	823	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>0</b>	2	---
Sodium	ppm	ASTM D5185m		<b>5</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	---
Water	%	ASTM D6304	>2.26	<b>0.743</b>	1.01	---
ppm Water	ppm	ASTM D6304	>22600	<b>7430</b>	10100	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>11205</b>	▲ 74734	---
Particles >6µm		ASTM D7647	>2500	<b>3794</b>	▲ 25529	---
Particles >14µm		ASTM D7647	>320	<b>299</b>	▲ 1803	---
Particles >21µm		ASTM D7647	>80	<b>68</b>	▲ 368	---
Particles >38µm		ASTM D7647	>20	<b>4</b>	7	---
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>21/19/15</b>	▲ 23/22/18	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.38</b>	0.60	---

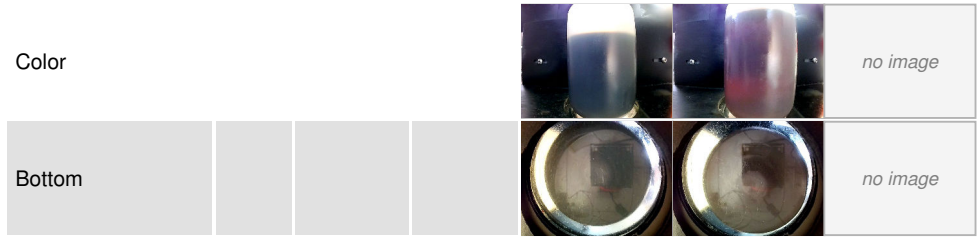
# OIL ANALYSIS REPORT



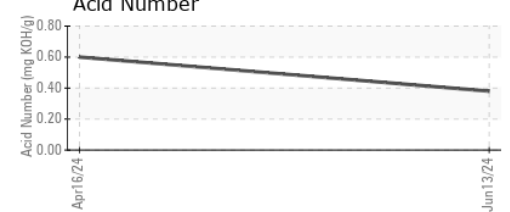
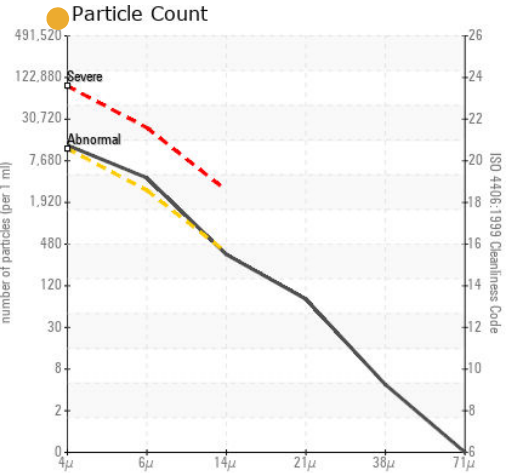
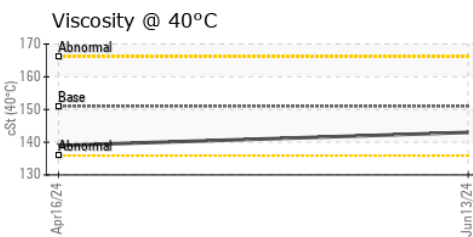
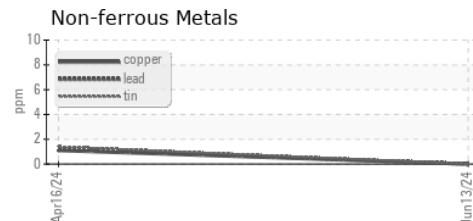
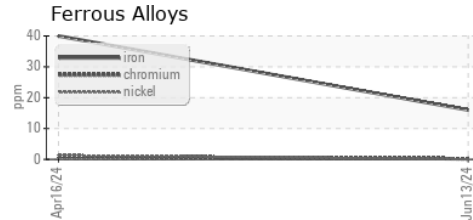
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>2.26	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	143	---
Visc @ 100°C	cSt	ASTM D445	28	25.5	---
Viscosity Index (VI)	Scale	ASTM D2270	224	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.** : TO90004545 **Received** : 26 Jun 2024  
**Lab Number** : 06221306 **Tested** : 27 Jun 2024  
**Unique Number** : 11099503 **Diagnosed** : 28 Jun 2024 - Don Baldrige  
**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: