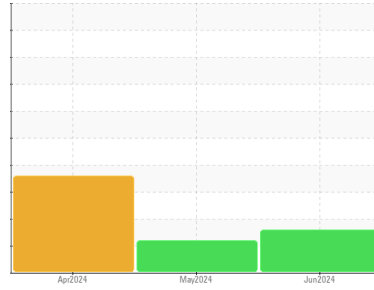


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
LEROI 112894 - HP-3 MESA VERDE (S/N 5680X34)
 Component
Compressor
 Fluid
CIMARRON HB-150 (--- GAL)

DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

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 suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	TO90004514	TO90004246	TO90004018
Sample Date	Client Info	18 Jun 2024	13 May 2024	08 Apr 2024
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Changed	Changed	N/A
Sample Status		ABNORMAL	ATTENTION	SEVERE

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	15	21	43
Chromium	ppm	ASTM D5185m >10	<1	<1	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	2	<1	0
Lead	ppm	ASTM D5185m >25	0	1	0
Copper	ppm	ASTM D5185m >50	0	<1	<1
Tin	ppm	ASTM D5185m >15	0	1	1
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	2	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 0	<1	0	0
Calcium	ppm	ASTM D5185m 0	0	0	6
Phosphorus	ppm	ASTM D5185m 0	25	57	76
Zinc	ppm	ASTM D5185m 0	0	0	<1
Sulfur	ppm	ASTM D5185m 0	594	1263	1241

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	0	<1	0
Sodium	ppm	ASTM D5185m	6	4	5
Potassium	ppm	ASTM D5185m >20	<1	4	<1
Water	%	ASTM D6304 >2.26	1.01	1.35	▲ 4.456
ppm Water	ppm	ASTM D6304 >22600	10100	13500	▲ 44567

FLUID CLEANLINESS

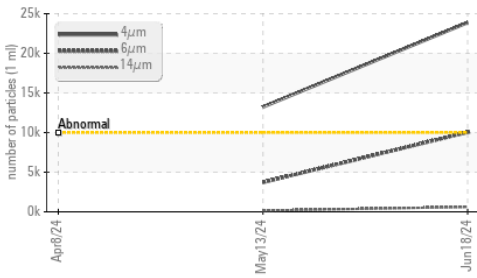
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ 23889	● 13235	---
Particles >6µm	ASTM D7647 >2500	▲ 10044	● 3715	---
Particles >14µm	ASTM D7647 >320	▲ 615	157	---
Particles >21µm	ASTM D7647 >80	50	17	---
Particles >38µm	ASTM D7647 >20	0	0	---
Particles >71µm	ASTM D7647 >4	0	0	---
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 22/21/16	● 21/19/14	---

FLUID DEGRADATION

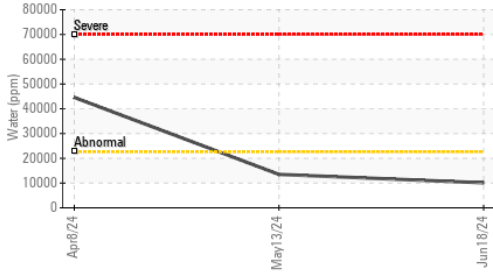
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	0.55	0.53

OIL ANALYSIS REPORT

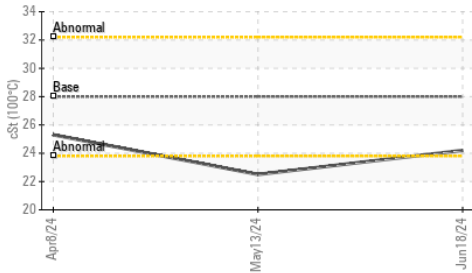
Particle Trend



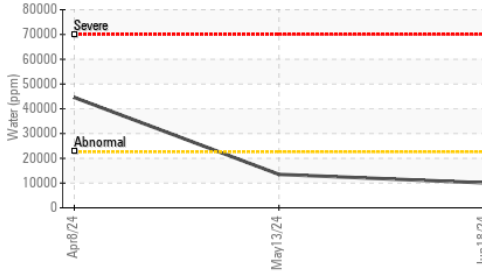
Water (KF)



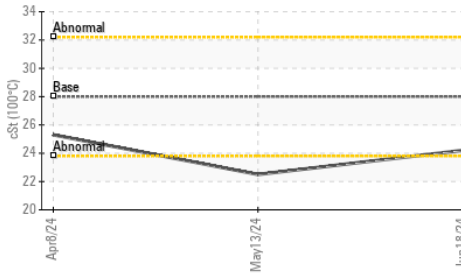
Viscosity @ 100°C



Water (KF)



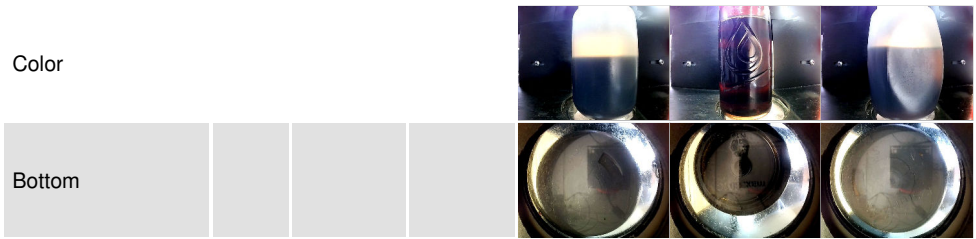
Viscosity @ 100°C



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	LIGHT	▲ MODER
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

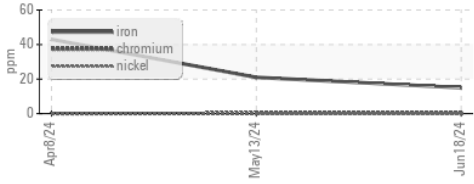
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	123	140
Visc @ 100°C	cSt	ASTM D445	28	22.5	25.3
Viscosity Index (VI)	Scale	ASTM D2270	224	213	216

SAMPLE IMAGES

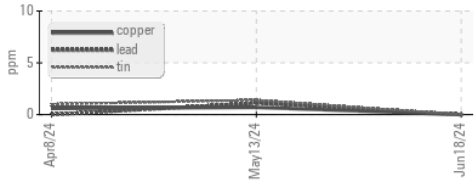


GRAPHS

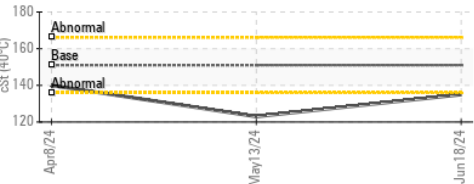
Ferrous Alloys



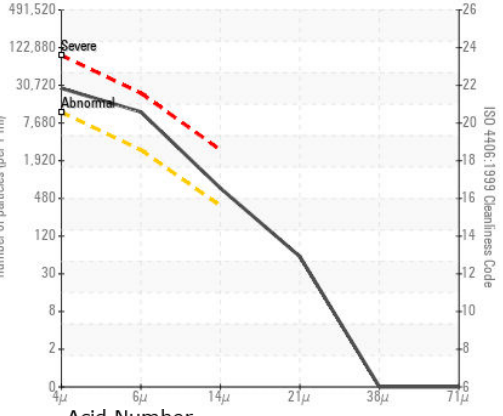
Non-ferrous Metals



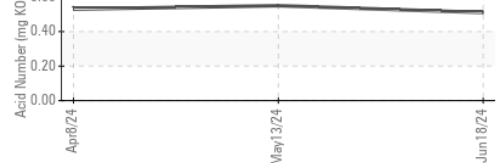
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90004514
Lab Number : 06221300
Unique Number : 11099497
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)
Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Don Baldrige

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)