



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
IROCK RDS-20 ARTESIA CRUSHER

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013994	KL0013134	KL0012895
Sample Date		Client Info		26 Jan 2024	06 Nov 2023	02 Oct 2023
Machine Age	hrs	Client Info		0	45160	4182
Oil Age	hrs	Client Info		0	45160	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	2	0	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	<1	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	<1	0	<1
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

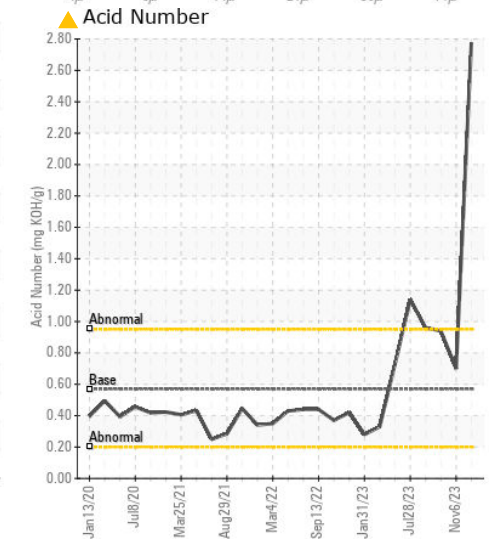
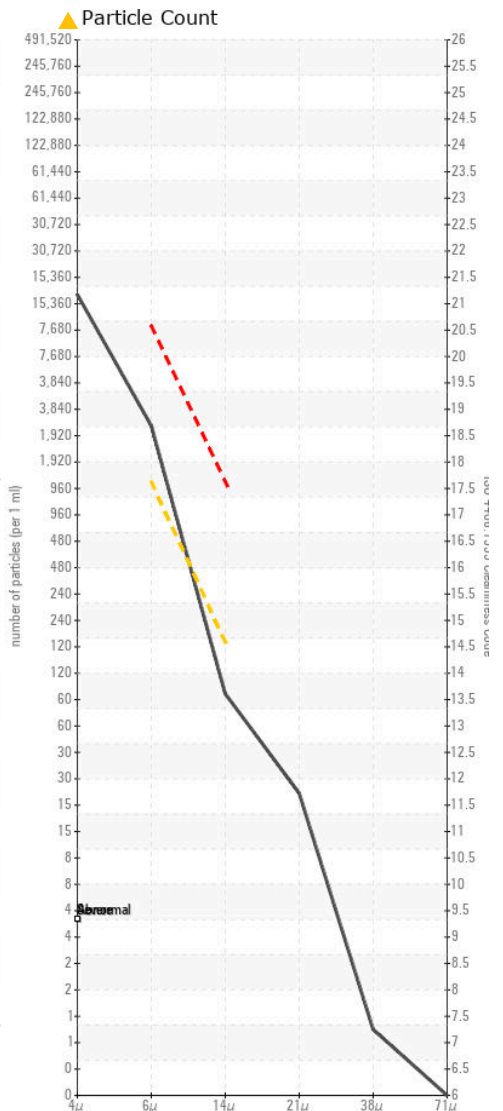
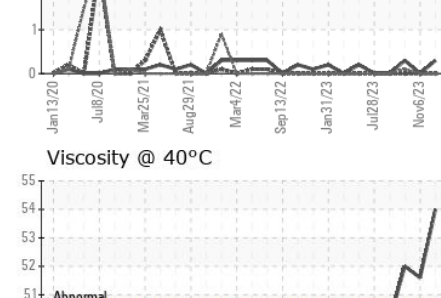
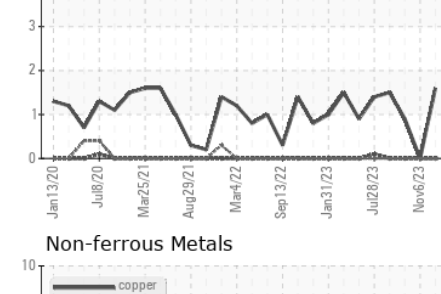
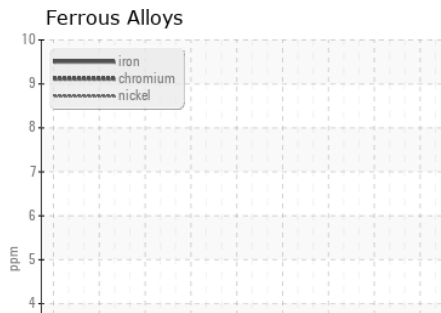
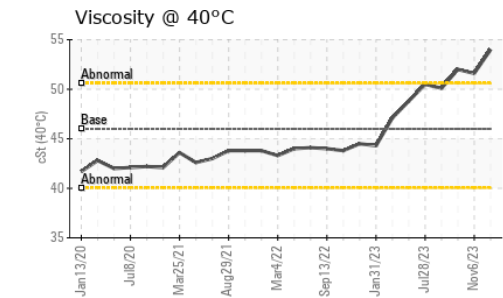
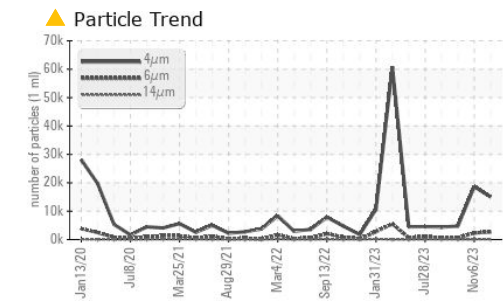
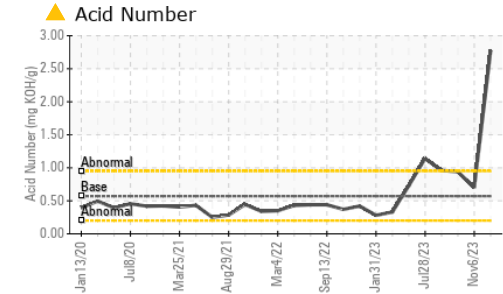
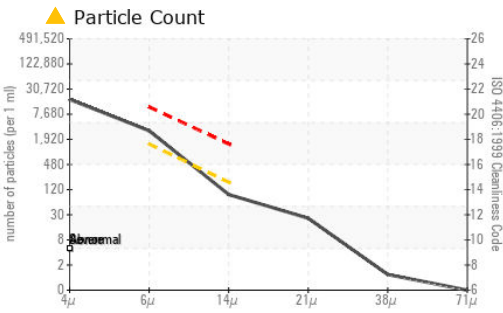
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	3	2
Potassium	ppm	ASTM D5185m	>20	0	0	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		15043	18637	4729
Particles >6µm		ASTM D7647	>1300	▲ 2701	▲ 2318	566
Particles >14µm		ASTM D7647	>160	81	74	22
Particles >21µm		ASTM D7647	>40	22	19	6
Particles >38µm		ASTM D7647	>10	1	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>17/14	▲ 19/14	▲ 18/13	16/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		1	0	2
Boron	ppm	ASTM D5185m	5	3	2	2
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	0	1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	25	8	7	11
Calcium	ppm	ASTM D5185m	200	1776	1594	1327
Phosphorus	ppm	ASTM D5185m	300	868	799	685
Zinc	ppm	ASTM D5185m	370	996	912	832
Sulfur	ppm	ASTM D5185m	2500	2886	2625	2396
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	▲ 2.773	0.70	0.94
Visc @ 40°C	cSt	ASTM D445	46	54.0	51.6	52.0



Certificate L2367

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

Sample No. : KL0013994

Lab Number : 06083059

Unique Number : 10870504

Test Package : MOB 2

Received : 07 Feb 2024

Tested : 08 Feb 2024

Diagnosed : 09 Feb 2024 - Don Baldrige

RAMIREZ & SONS

3404 N ENTERPRISE DR

HOBBS, NM

US 88240

Contact: Rick Davidson

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T:

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)