



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
INGERSOLL RAND SD115SF 000916 (S/N 160317)

Component
Hydraulic System

Fluid
CASTROL DUAL RANGE HV HYD OIL ISO 46 (40 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0800484	WC0664807	WC0497855
Sample Date		Client Info		18 Dec 2023	03 Jun 2022	15 May 2021
Machine Age	hrs	Client Info		9867	9468	9059
Oil Age	hrs	Client Info		399	1500	1000
Filter Age	hrs	Client Info		399	500	500
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	3	3	2
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	<1
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>75	3	2	2
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

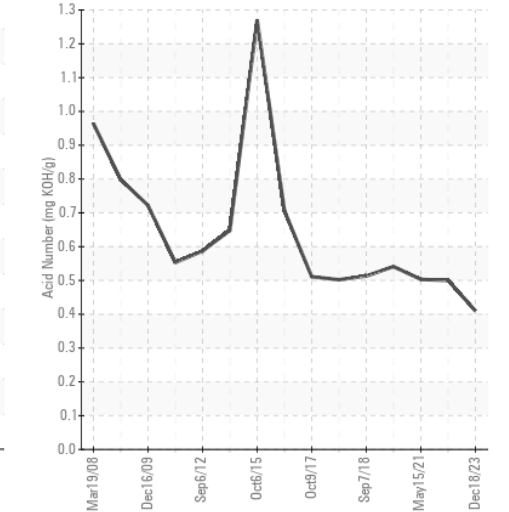
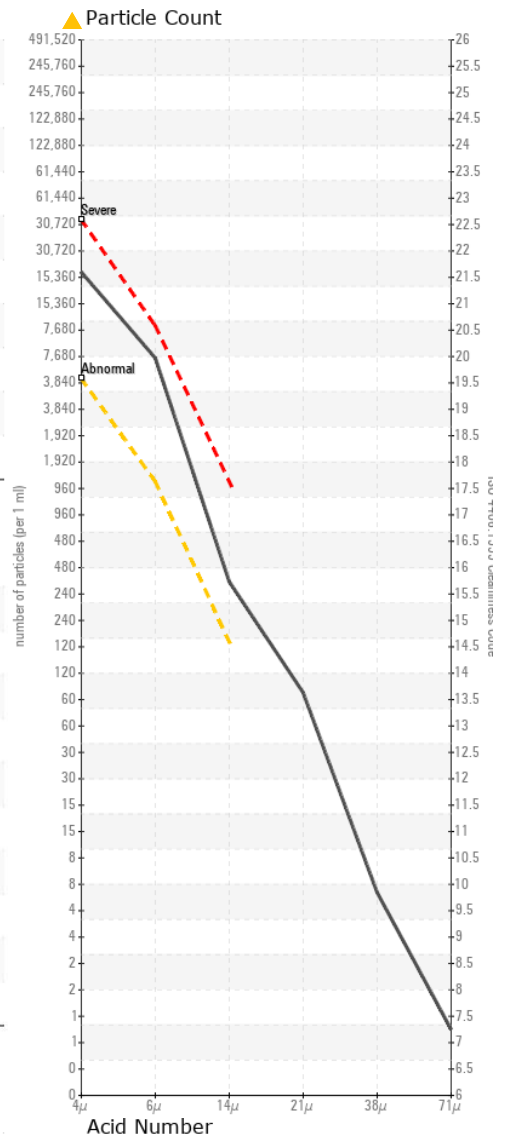
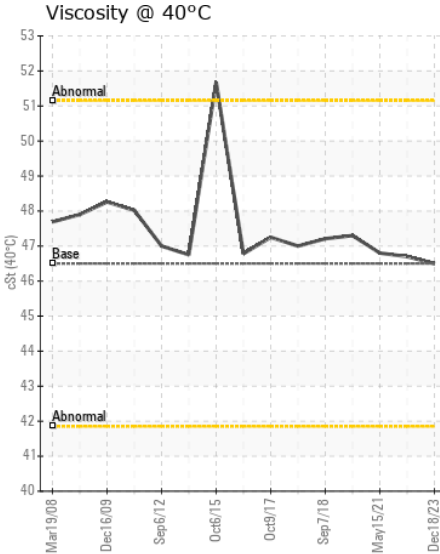
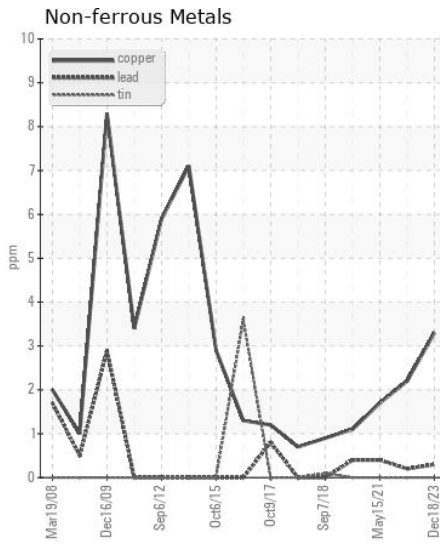
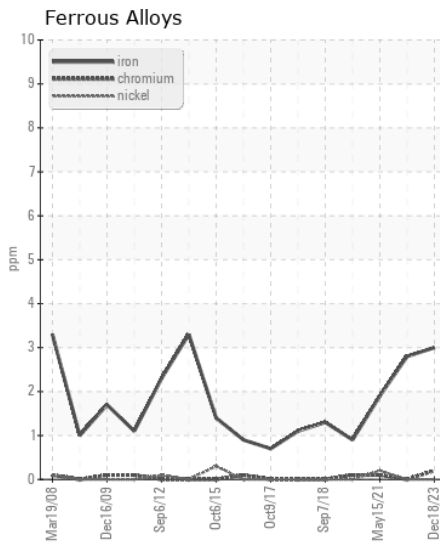
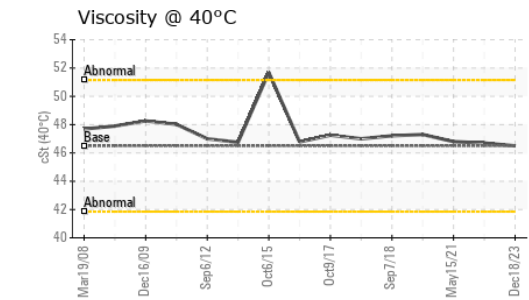
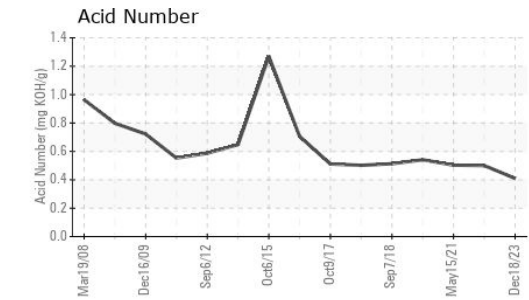
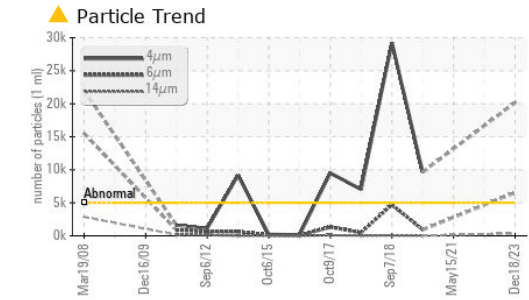
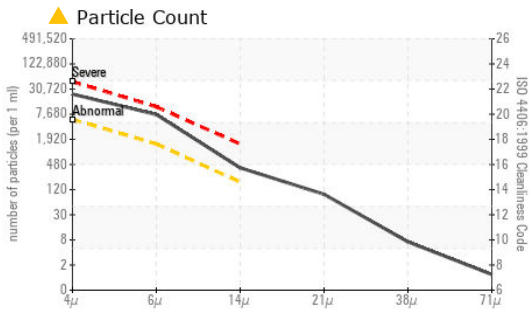
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	1	1	0
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 20180	---	---
Particles >6µm		ASTM D7647	>1300	▲ 6552	---	---
Particles >14µm		ASTM D7647	>160	▲ 351	---	---
Particles >21µm		ASTM D7647	>40	▲ 82	---	---
Particles >38µm		ASTM D7647	>10	6	---	---
Particles >71µm		ASTM D7647	>3	1	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/20/16	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	▲ MODER
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 acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	<1	1
Boron	ppm	ASTM D5185m		2	4	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	2	2
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		20	17	15
Calcium	ppm	ASTM D5185m		253	216	236
Phosphorus	ppm	ASTM D5185m		470	381	408
Zinc	ppm	ASTM D5185m		543	472	560
Sulfur	ppm	ASTM D5185m		1526	1234	1219
Acid Number (AN)	mg KOH/g	ASTM D8045		0.41	0.50	0.503
Visc @ 40°C	cSt	ASTM D445	46.5	46.5	46.7	46.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0800484 **Received** : 12 Jan 2024
Lab Number : 06060166 **Diagnosed** : 16 Jan 2024
Unique Number : 10831548 **Diagnostician** : Wes Davis
Test Package : CONST

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)

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