



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
IH M10A 01 (S/N 2530)
 Component
Hydraulic System
 Fluid
SAE 10W (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06221164	---	---
Sample Date		Client Info		20 Jun 2024	---	---
Machine Age	hrs	Client Info		475	---	---
Oil Age	hrs	Client Info		475	---	---
Filter Age	hrs	Client Info		475	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	5	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>10	<1	---	---
Lead	ppm	ASTM D5185m	>10	3	---	---
Copper	ppm	ASTM D5185m	>75	9	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

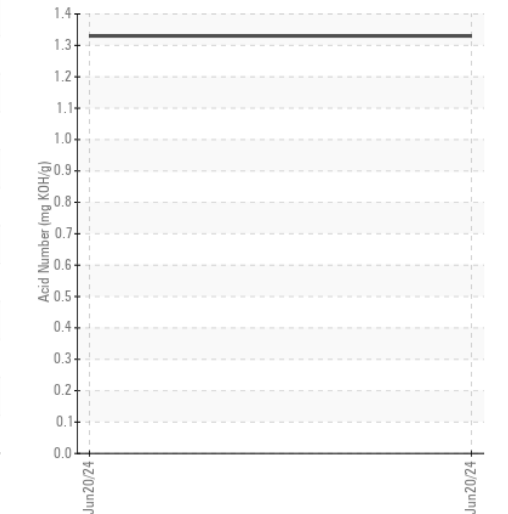
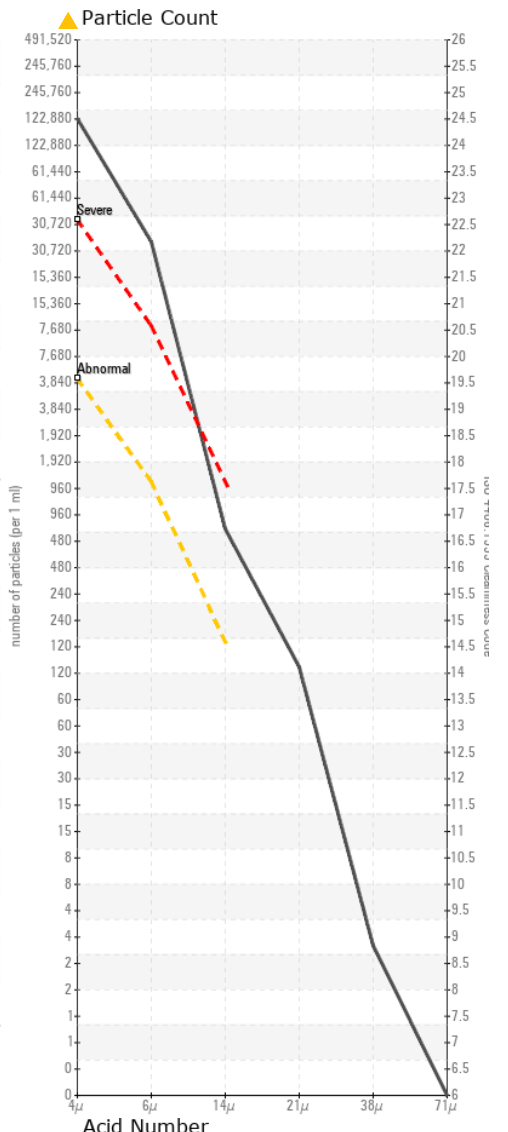
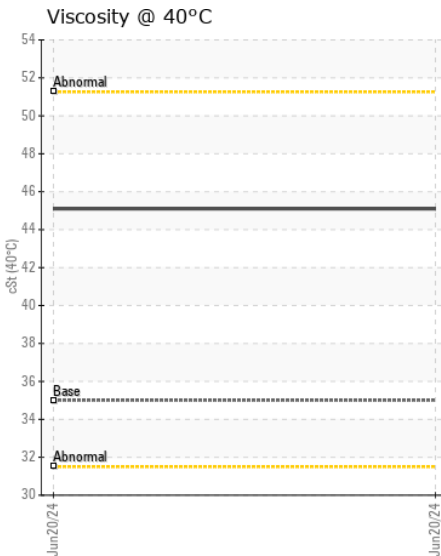
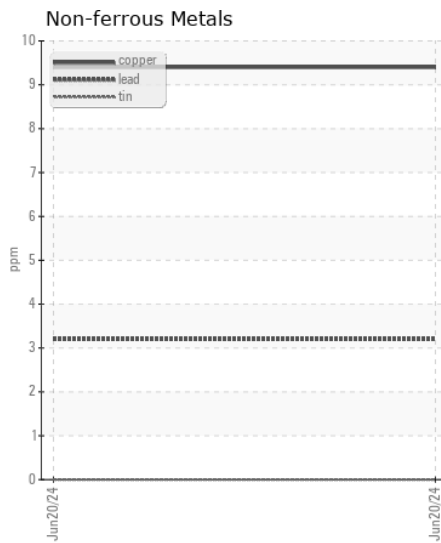
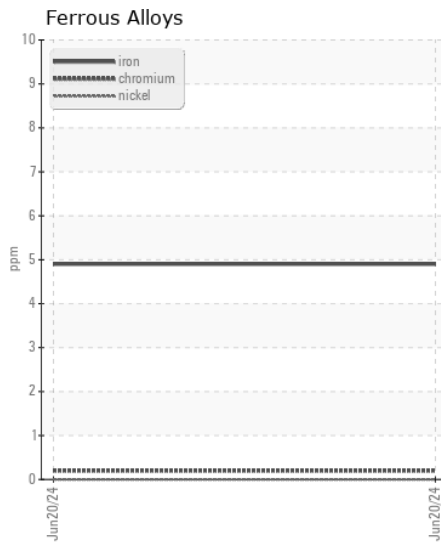
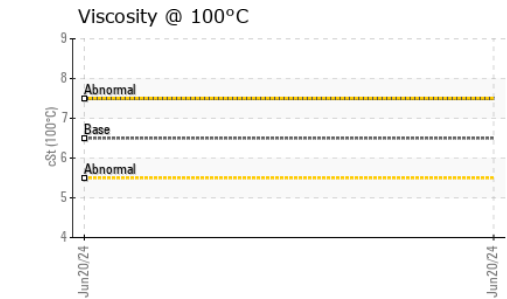
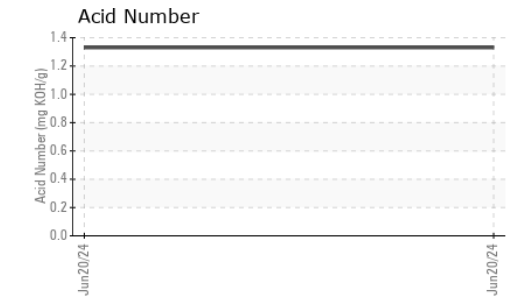
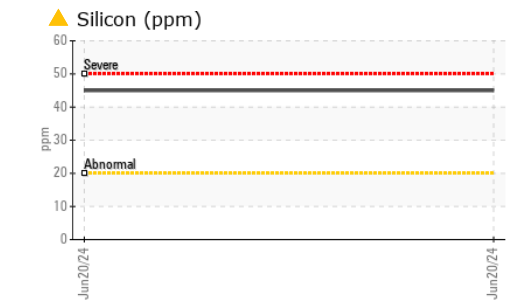
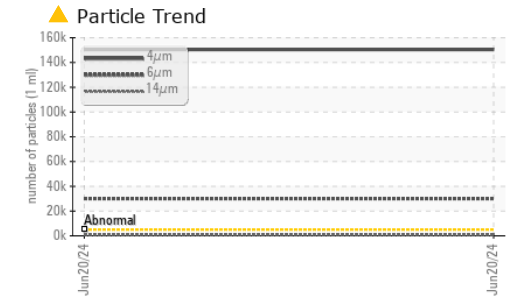
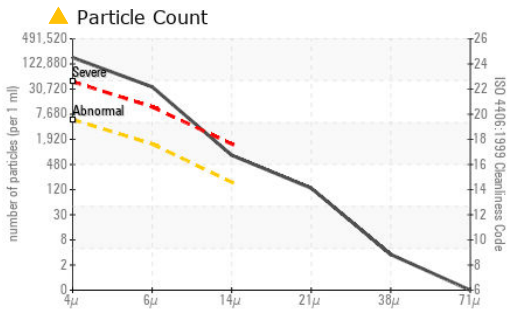
There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>20	▲ 45	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	▲ 150429	---	---
Particles >6µm		ASTM D7647	>1300	▲ 30053	---	---
Particles >14µm		ASTM D7647	>160	▲ 701	---	---
Particles >21µm		ASTM D7647	>40	▲ 115	---	---
Particles >38µm		ASTM D7647	>10	3	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 24/22/17	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		4	---	---
Boron	ppm	ASTM D5185m		5	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		5	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		281	---	---
Calcium	ppm	ASTM D5185m		1823	---	---
Phosphorus	ppm	ASTM D5185m		955	---	---
Zinc	ppm	ASTM D5185m		1093	---	---
Sulfur	ppm	ASTM D5185m		4128	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.33	---	---
Visc @ 40°C	cSt	ASTM D445	35.0	45.1	---	---
Visc @ 100°C	cSt	ASTM D445	6.5	7.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270	141	131	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06221164 **Received** : 26 Jun 2024
Lab Number : 06221164 **Tested** : 27 Jun 2024
Unique Number : 11099361 **Diagnosed** : 27 Jun 2024 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

WIE - WESTERN INDUSTRIAL EQUIPMENT
 10761 N WILSON RD
 LAKE CITY, MI
 US 49651
 Contact: JOHN HIGGINS

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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: