



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
TK535

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0708425	WC0554820	---
Sample Date		Client Info		25 Jan 2023	30 Apr 2021	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	Not Changd	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	13	13	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	0	0	---
Lead	ppm	ASTM D5185m	>10	0	<1	---
Copper	ppm	ASTM D5185m	>75	1	2	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

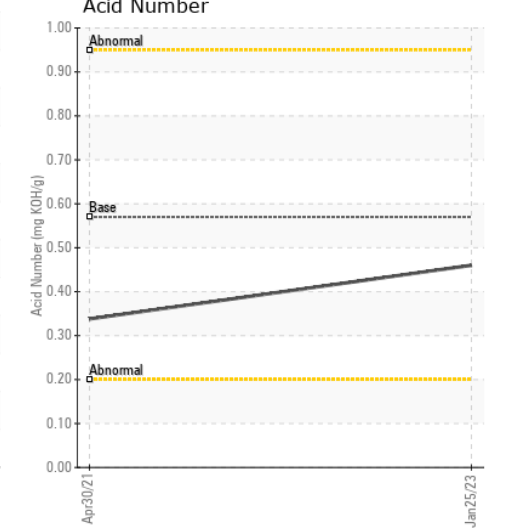
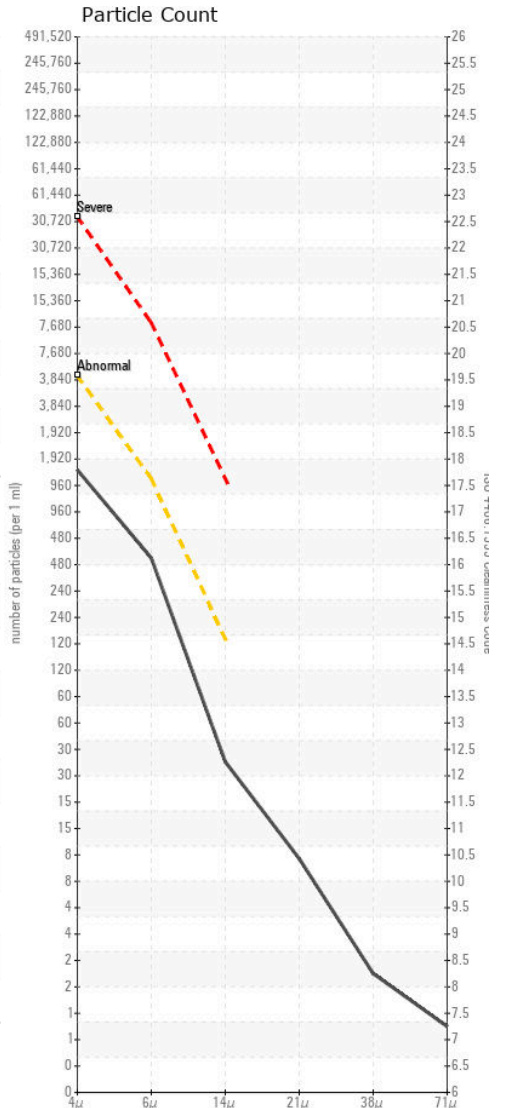
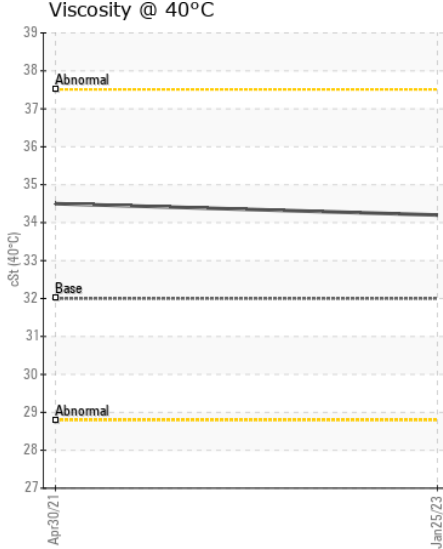
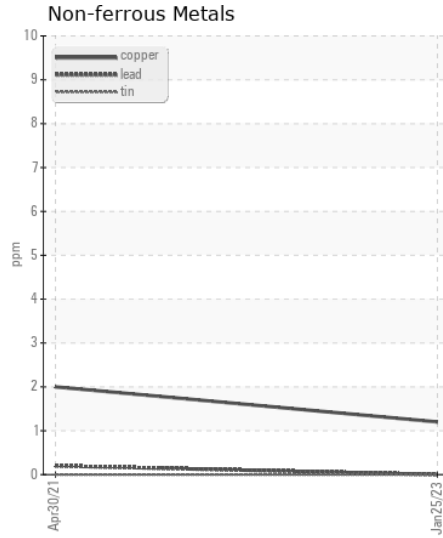
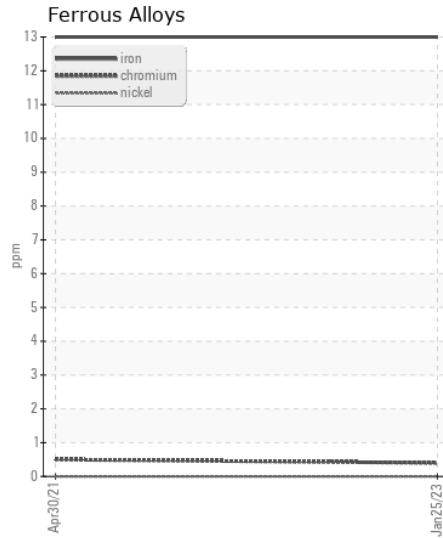
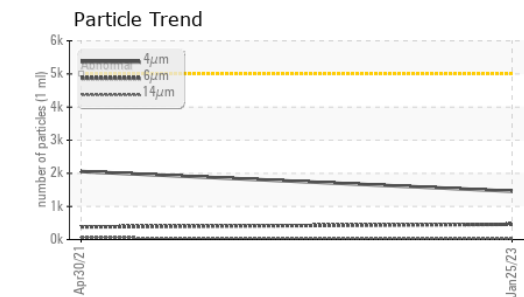
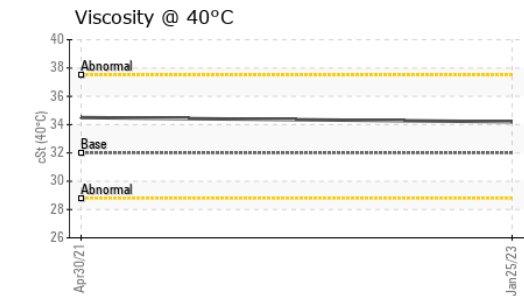
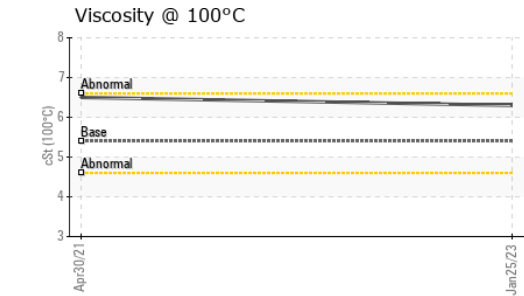
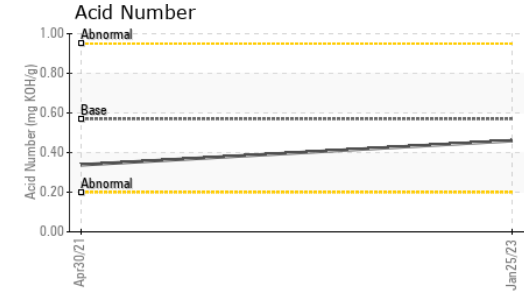
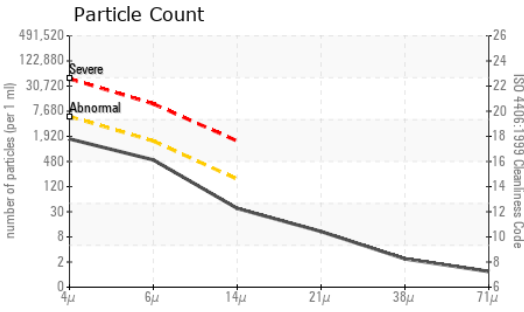
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	1	2	---
Potassium	ppm	ASTM D5185m	>20	<1	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	1459	2055	---
Particles >6µm		ASTM D7647	>1300	460	381	---
Particles >14µm		ASTM D7647	>160	32	56	---
Particles >21µm		ASTM D7647	>40	9	21	---
Particles >38µm		ASTM D7647	>10	2	2	---
Particles >71µm		ASTM D7647	>3	1	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/16/12	18/16/13	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	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		0	<1	---
Boron	ppm	ASTM D5185m	5	0	6	---
Barium	ppm	ASTM D5185m	5	1	0	---
Molybdenum	ppm	ASTM D5185m	5	<1	1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	25	8	10	---
Calcium	ppm	ASTM D5185m	200	87	114	---
Phosphorus	ppm	ASTM D5185m	300	301	361	---
Zinc	ppm	ASTM D5185m	370	341	395	---
Sulfur	ppm	ASTM D5185m	2500	3377	3491	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.46	0.338	---
Visc @ 40°C	cSt	ASTM D445	32	34.2	34.5	---
Visc @ 100°C	cSt	ASTM D445	5.4	6.3	6.5	---
Viscosity Index (VI)	Scale	ASTM D2270	102	136	144	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0708425 **Received** : 26 Jan 2023
Lab Number : 05750819 **Diagnosed** : 27 Jan 2023
Unique Number : 10310423 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, VI)

HIAB USA - PORTSMOUTH
 3115 WATSON ST
 PORTSMOUTH, VA
 US 23707
 Contact: THOMAS ASBELL
 thomas.asbell@cargotec.com
 T: (757)558-4590
 F: x:

Certificate L2367
 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)