



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
VALIANT THRUST 68 (WATER BOTTLE)

Component
Oil
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO70000146	---	---
Sample Date		Client Info		08 Feb 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>5	▲ 39	---	---
Chromium	ppm	ASTM D5185m	>5	2	---	---
Nickel	ppm	ASTM D5185m	>5	▲ 6	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>5	0	---	---
Aluminum	ppm	ASTM D5185m	>5	▲ 6	---	---
Lead	ppm	ASTM D5185m	>5	● 10	---	---
Copper	ppm	ASTM D5185m	>5	● 315	---	---
Tin	ppm	ASTM D5185m	>5	<1	---	---
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.

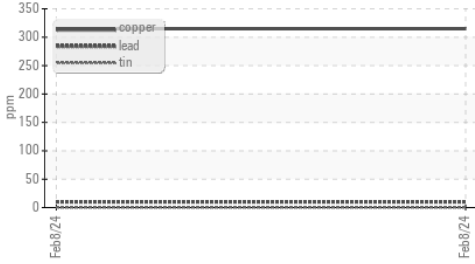
Silicon	ppm	ASTM D5185m	>15	1	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water	%	ASTM D6304		0.023	---	---
ppm Water	ppm	ASTM D6304		239	---	---
Particles >4µm		ASTM D7647	>5000	▲ 304803	---	---
Particles >6µm		ASTM D7647	>1300	▲ 250289	---	---
Particles >14µm		ASTM D7647	>160	▲ 49099	---	---
Particles >21µm		ASTM D7647	>40	▲ 5331	---	---
Particles >38µm		ASTM D7647	>10	2	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 25/25/23	---	---
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		NEG	---	---

FLUID CONDITION

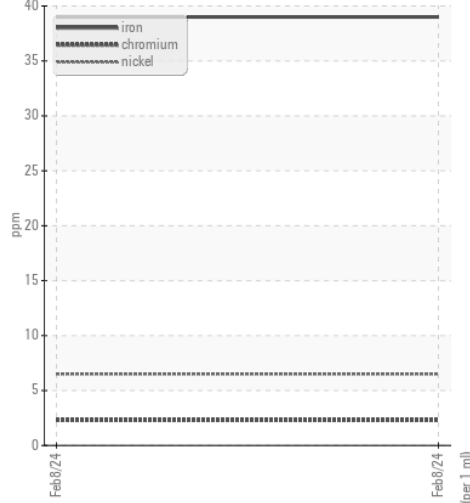
The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		6	---	---
Calcium	ppm	ASTM D5185m		5	---	---
Phosphorus	ppm	ASTM D5185m		24	---	---
Zinc	ppm	ASTM D5185m		201	---	---
Sulfur	ppm	ASTM D5185m		923	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.53	---	---
Visc @ 40°C	cSt	ASTM D445		67.8	---	---
Visc @ 100°C	cSt	ASTM D445		10.8	---	---
Viscosity Index (VI)	Scale	ASTM D2270		149	---	---

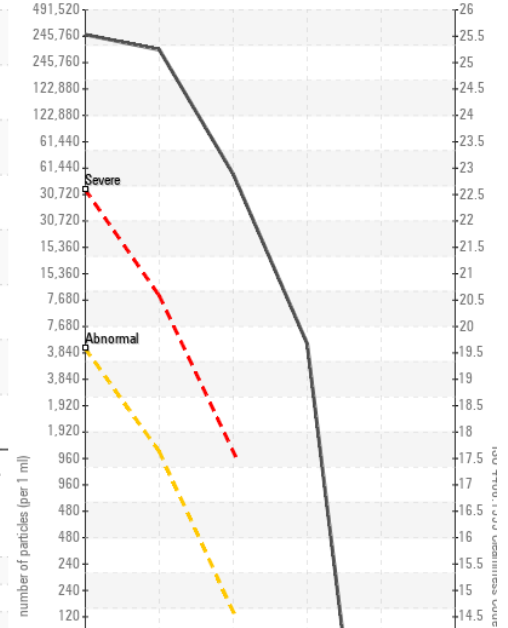
Non-ferrous Metals



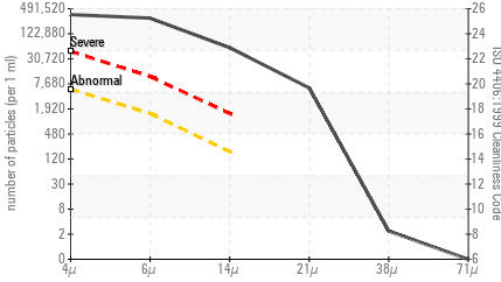
Ferrous Alloys



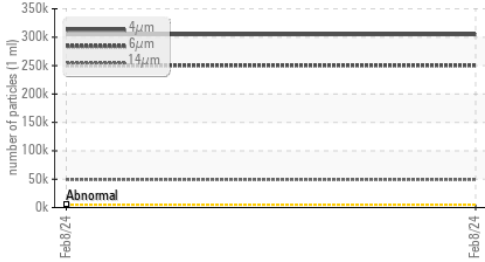
Particle Count



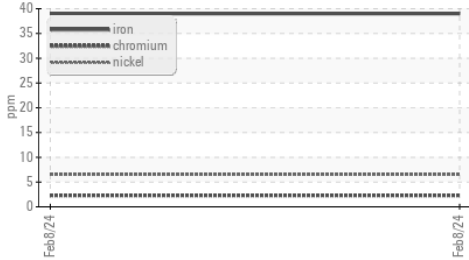
Particle Count



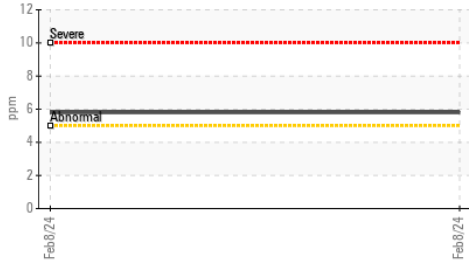
Particle Trend



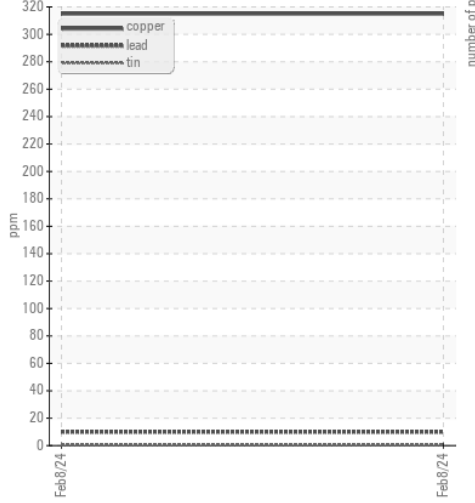
Ferrous Alloys



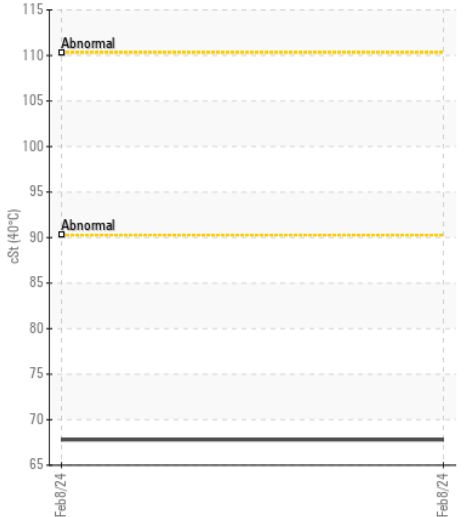
Aluminum (ppm)



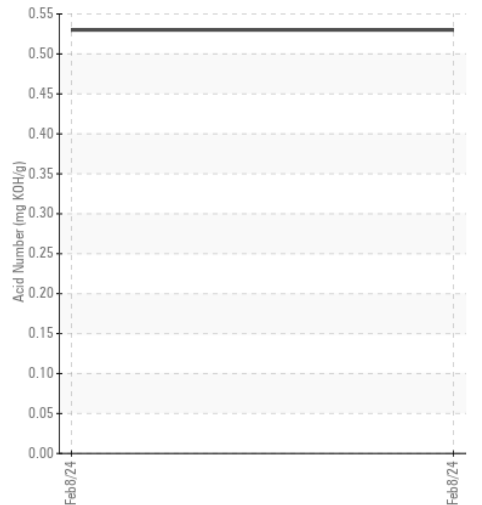
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

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

Sample No. : TO70000146

Lab Number : 06084816

Unique Number : 10872261

Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KF, KV100, PrtCount, VI)

Received : 09 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Doug Bogart

TULCO OILS INC (007-INTERNATIONAL DIVISION)

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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)