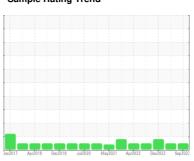


OIL ANALYSIS REPORT

Sample Rating Trend







CRYOVAC - BTTM

Component Pump Fluid

USPI VAC 100 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

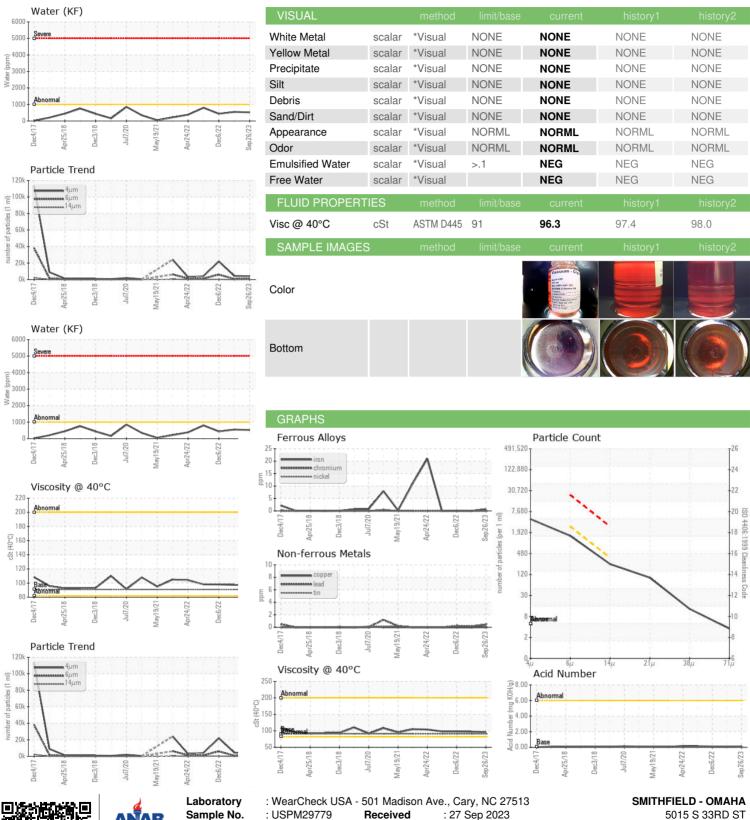
Fluid Condition

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

3m2017 Apr2018 Onc2018 3m2020 May2021 Apr2022 Onc2022 Sm2002						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USPM29779	USPM28023	USPM24213
Sample Date		Client Info		26 Sep 2023	16 May 2023	06 Dec 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<1	0	0
Chromium	ppm	ASTM D5185m	>5	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	1	0
Lead	ppm	ASTM D5185m	>12	0	0	0
Copper	ppm	ASTM D5185m	>30	<1	0	0
Tin	ppm	ASTM D5185m	>9	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	0	0	0	0
Calcium	ppm	ASTM D5185m	0	2	0	0
Phosphorus	ppm	ASTM D5185m	1800	1469	1415	1514
Zinc	ppm	ASTM D5185m	0	0	0	0
Sulfur	ppm	ASTM D5185m	0	40	0	24
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	7	2	2
Sodium	ppm	ASTM D5185m		1	0	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water	%	ASTM D6304	>.1	0.051	0.055	0.043
ppm Water	ppm	ASTM D6304	>1000	517.8	550.6	433.7
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		4087	4431	22036
Particles >6µm		ASTM D7647	>2500	1351	684	△ 5993
Particles >14µm		ASTM D7647	>320	211	25	312
Particles >21µm		ASTM D7647	>80	86	5	54
Particles >38µm		ASTM D7647	>20	11	1	1
Particles >71µm		ASTM D7647	>4	3	0	1
Oil Cleanliness		ISO 4406 (c)	>/18/15	19/18/15	19/17/12	<u>22/20/15</u>
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	0.12	0.06	0.11



OIL ANALYSIS REPORT





Certificate L2367

Sample No. Lab Number **Unique Number**

: USPM29779 : 05962241 : 10668792 Test Package : IND 2

Received Diagnosed

: 28 Sep 2023 Diagnostician : Doug Bogart

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)

T: F:

OMAHA, NE

US 68107

Contact: