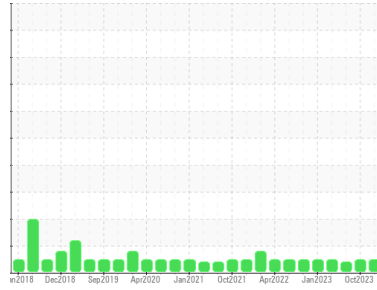




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Wetstarch
 Machine Id
Starch Surge Hopper Aggitator
 Component
Case Drain Gearbox
 Fluid
ROYAL PURPLE SYNFILM 100 (60 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0886197	WC0816883	WC0726086
Sample Date	Client Info		24 Jan 2024	30 Oct 2023	26 Jul 2023
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	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 >200	<1	0	7
Chromium	ppm	ASTM D5185m >15	0	0	<1
Nickel	ppm	ASTM D5185m >15	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	<1	<1	1
Lead	ppm	ASTM D5185m >100	0	0	1
Copper	ppm	ASTM D5185m >200	0	<1	0
Tin	ppm	ASTM D5185m >25	<1	<1	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m 90	75	76	51
Calcium	ppm	ASTM D5185m	7	9	2
Phosphorus	ppm	ASTM D5185m	19	20	60
Zinc	ppm	ASTM D5185m	5	8	4
Sulfur	ppm	ASTM D5185m	17014	18324	20357

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	4	<1	2
Sodium	ppm	ASTM D5185m	1	1	0
Potassium	ppm	ASTM D5185m >20	<1	<1	3
Water	%	ASTM D6304 >0.2	0.049	---	---
ppm Water	ppm	ASTM D6304 >2000	490	---	---

FLUID CLEANLINESS

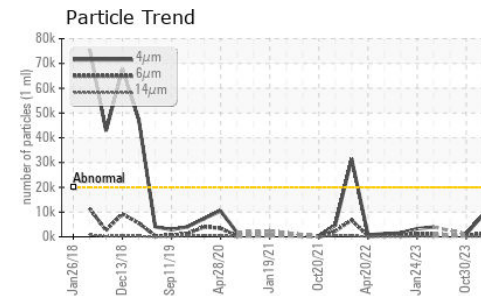
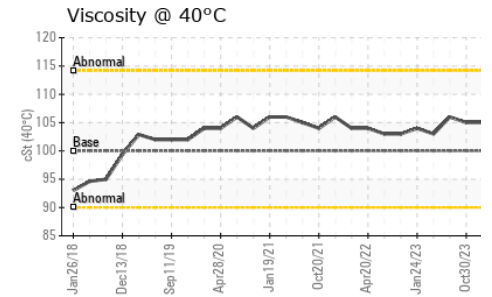
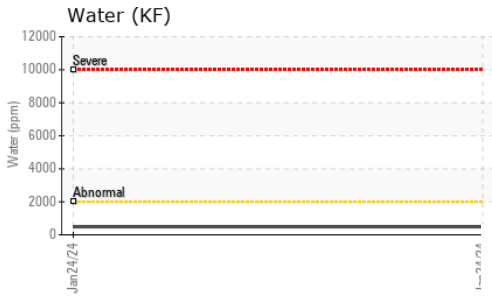
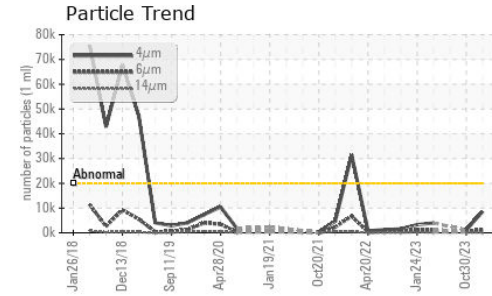
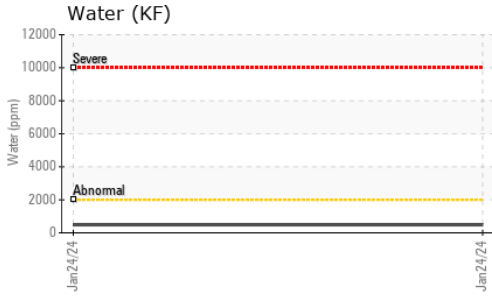
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	8592	1122	---
Particles >6µm	ASTM D7647	>5000	1306	481	---
Particles >14µm	ASTM D7647	>640	82	72	---
Particles >21µm	ASTM D7647	>160	13	8	---
Particles >38µm	ASTM D7647	>40	0	0	---
Particles >71µm	ASTM D7647	>10	0	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	20/18/14	17/16/13	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.25	0.41	0.43	0.36



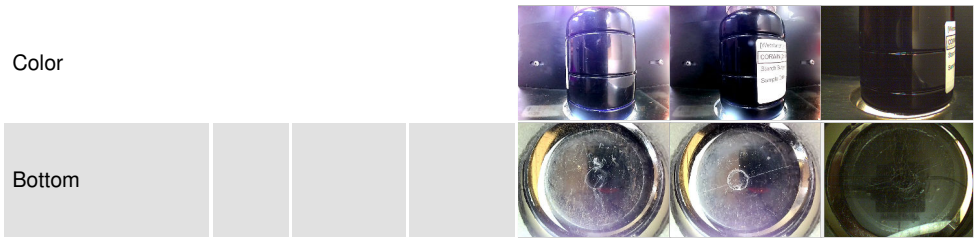
OIL ANALYSIS REPORT



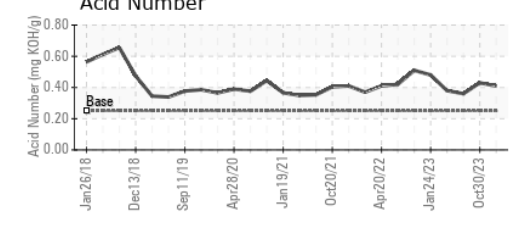
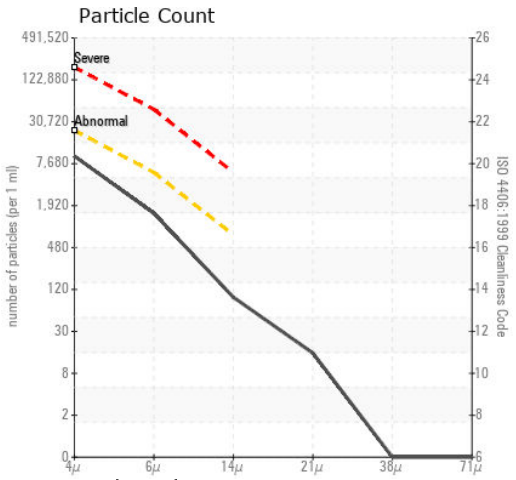
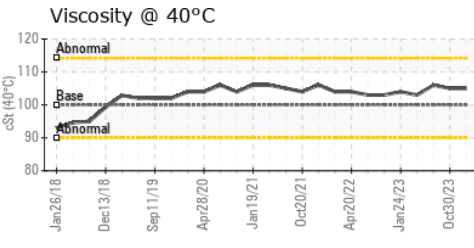
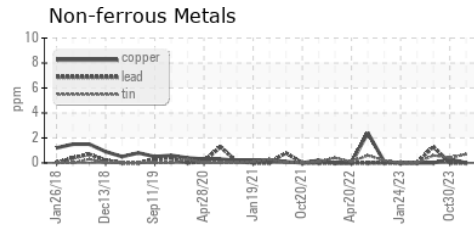
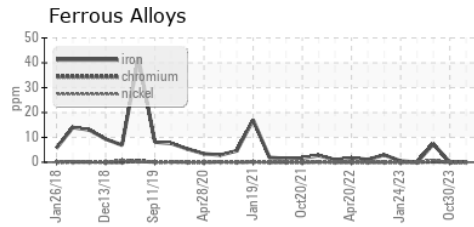
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	105	106

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886197
Lab Number : 06075733
Unique Number : 10857824
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 31 Jan 2024
Tested : 06 Feb 2024
Diagnosed : 06 Feb 2024 - Wes Davis

INGREDION INC
 WINSTON SALEM PLANT, 4501 OVERDALE ROAD
 WINSTON SALEM, NC
 US 27107
 Contact: MATTHEW KING
 matthew.king@ingredion.com
 T:
 F: (336)785-8809

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)