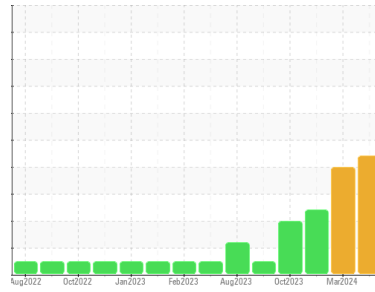


# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**Thermoforming**  
 Machine Id  
**Line 4 C Extruder (S/N AJ213)**  
 Component  
**Bevel Helical Gearbox**  
 Fluid  
**{not provided} (18 GAL)**

## DIAGNOSIS

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

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal.

**Fluid Condition**  
 The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>TO50002191</b>	TO50002228	TO50002177
Sample Date	Client Info			<b>17 Apr 2024</b>	29 Mar 2024	29 Feb 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Chngd</b>	Filtered	Not Chngd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		<b>15</b>	12	14
Iron	ppm	ASTM D5185m	>150	<b>2</b>	3	0
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	2	2
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

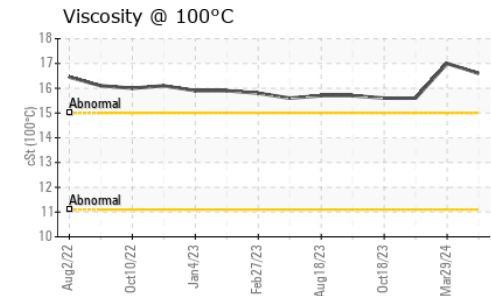
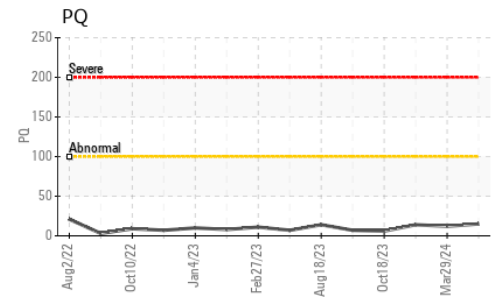
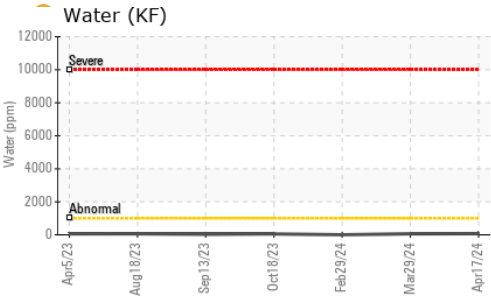
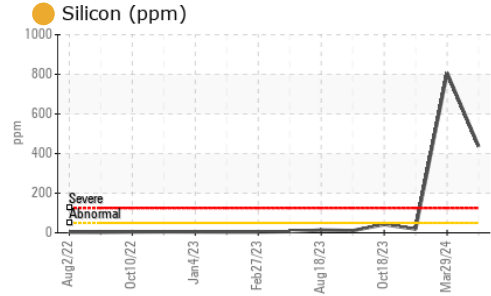
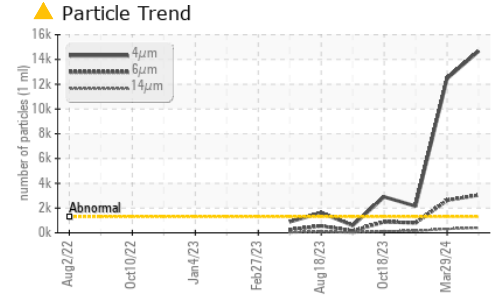
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	3	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>1</b>	5	0
Phosphorus	ppm	ASTM D5185m		<b>528</b>	661	527
Zinc	ppm	ASTM D5185m		<b>2</b>	7	4
Sulfur	ppm	ASTM D5185m		<b>1194</b>	1470	412

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>436</b>	806	19
Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Water	%	ASTM D6304	>0.1	<b>0.007</b>	0.006	0.00
ppm Water	ppm	ASTM D6304	>1000	<b>72</b>	64	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	<b>14669</b>	12463	2156
Particles >6µm		ASTM D7647	>320	<b>3044</b>	2627	802
Particles >14µm		ASTM D7647	>80	<b>399</b>	314	151
Particles >21µm		ASTM D7647	>20	<b>195</b>	126	77
Particles >38µm		ASTM D7647	>4	<b>48</b>	13	10
Particles >71µm		ASTM D7647	>3	<b>13</b>	1	1
Oil Cleanliness		ISO 4406 (c)	>17/15/13	<b>21/19/16</b>	21/19/15	18/17/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.81</b>	0.78	0.79



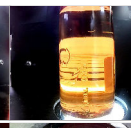
# OIL ANALYSIS REPORT






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	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

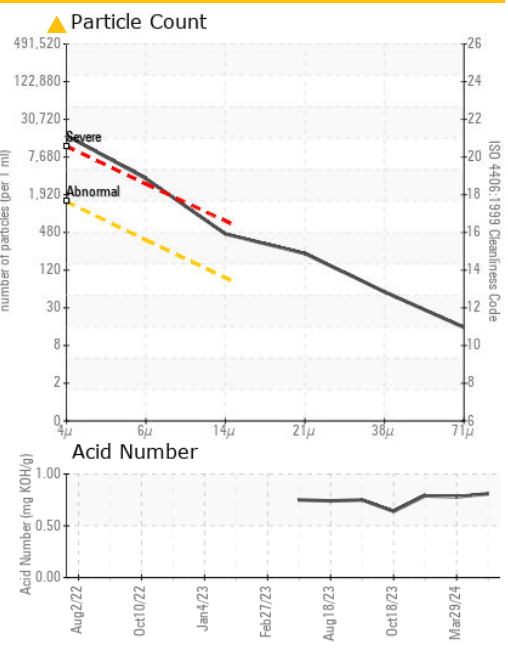
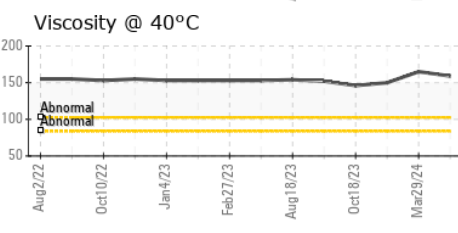
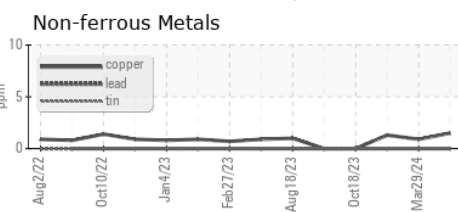
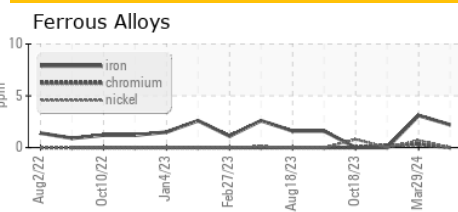
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	159	165	150
Visc @ 100°C	cSt	ASTM D445	16.6	17.0	15.6
Viscosity Index (VI)	Scale	ASTM D2270	110	110	106

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO50002191  
**Lab Number** : 06155940  
**Unique Number** : 10991363  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PQ, PrtCount, VI )  
**Received** : 22 Apr 2024  
**Tested** : 26 Apr 2024  
**Diagnosed** : 26 Apr 2024 - Jonathan Hester

**DART CONTAINER CORPORATION**  
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 DALLAS, TX  
 US 75236  
 Contact: YON PALOMINO  
 yon.palomino@dart.biz  
 T: (214)775-5673  
 F:

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)