

OIL ANALYSIS REPORT

Sample Rating Trend



INKS_U1 INKS_U1_P1 Component

Drive End Pump Elui

ROYAL PURPLE SYNFILM GT 32 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

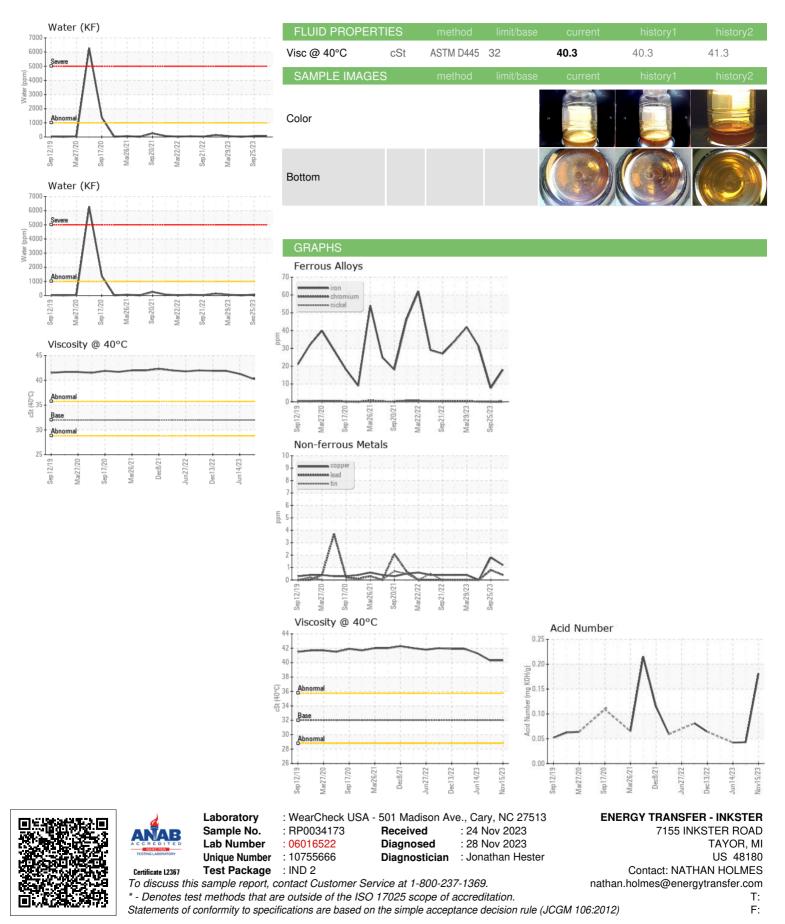
Fluid Condition

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

		ep2019 Mar20	20 Sep2020 Mar2021 Se	2021 Mar2022 Sep2022 Mar202	3 Sep2023	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RP0034173	RP0033799	RP0026125
Sample Date		Client Info		15 Nov 2023	25 Sep 2023	14 Jun 2023
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	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	18	8	31
Chromium	ppm	ASTM D5185m	>5	0	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	0	<1
Lead	ppm	ASTM D5185m	>12	<1	<1	0
Copper	ppm	ASTM D5185m		1	2	0
Tin	ppm	ASTM D5185m	>9	0	0	0
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
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		2	2	<1
Calcium	ppm	ASTM D5185m		1	0	4
		7101111 20100111			<u> </u>	
Phosphorus	ppm	ASTM D5185m		4	5	2
•				4 10		
Phosphorus Zinc CONTAMINANTS	ppm ppm	ASTM D5185m	limit/base		5	2
Zinc	ppm ppm	ASTM D5185m ASTM D5185m		10	5 19	2 7
Zinc CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method		10 current	5 19 history1	2 7 history2
Zinc CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m		10 current <1	5 19 history1 0	2 7 history2 0
Zinc CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	>60 >20	10 current <1 1	5 19 history1 0 0	2 7 history2 0 0
Zinc CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	>60 >20	10 current <1 1 <1	5 19 history1 0 0 1	2 7 history2 0 0 0
Zinc CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	>60 >20 >.1	10 current <1 1 <1 0.005	5 19 history1 0 0 1 1 0.007	2 7 history2 0 0 0 0 0 0.002
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>60 >20 >.1 >1000	10 current <1 1 <1 0.005 54	5 19 <u>history1</u> 0 0 1 1 0.007 72.5	2 7 history2 0 0 0 0 0.002 15.7
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA	ppm ppm ppm ppm ppm % ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 MEthod	>60 >20 >.1 >1000	10 current <1 1 <1 0.005 54 current	5 19 history1 0 0 1 0.007 72.5 history1	2 7 history2 0 0 0 0 0.002 15.7 history2
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal	ppm ppm ppm ppm ppm % ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 Method *Visual	>60 >20 >.1 >1000 limit/base limit/base NONE	10 current <1 1 <1 0.005 54 current 0.181 current NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE	2 7 history2 0 0 0 0 0 0.002 15.7 history2 0.042 history2 NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal	ppm ppm ppm ppm ppm ppm % ppm XTION mg KOH/g	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D8045 Method	>60 >20 >.1 >1000 limit/base limit/base NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 current	5 19 history1 0 0 1 1 0.007 72.5 history1 0.043 history1	2 7 history2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm % ppm % TION mg KOH/g scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 Method *Visual	>60 >20 >.1 >1000 limit/base limit/base NONE NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 current NONE NONE NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE	2 7 history2 0 0 0 0 0 0.002 15.7 history2 0.042 history2 NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm % ppm % ppm % TION mg KOH/g scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 CMEthod ASTM D8045 MEthod *Visual	>60 >20 >.1 >1000 limit/base limit/base NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 current NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE NONE	2 7 history2 0 0 0 0 0 0 0 0 0 0 0 0 2 15.7 history2 0.042 0.042 history2 NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm % ppm % ppm % ppm % vtion %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D8045 Method *Visual *Visual	>60 >20 >.1 >1000 limit/base limit/base NONE NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 current NONE NONE NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE NONE NONE	2 7 history2 0 0 0 0 0 0 0 0 0 0 0 2 15.7 history2 0.042 0.042 history2 NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm % ppm % ppm ¥ TION ¥ KOH/g	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D8045 method *Visual *Visual *Visual	>60 >20 >.1 >1000 limit/base limit/base NONE NONE NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 current NONE NONE NONE NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE NONE NONE NONE	2 7 history2 0 0 0 0 0.002 15.7 history2 0.042 0.042 history2 NONE NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm % ppm % ppm v v v v v v v v v v v v v v v v v v	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D8045 CMEthOd *Visual *Visual *Visual *Visual	>60 >20 >.1 >1000 limit/base limit/base NONE NONE NONE NONE NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 Current NONE NONE NONE NONE NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE NONE NONE NONE NONE NONE NONE	2 7 history2 0 0 0 0 0.002 15.7 history2 0.042 0.042 history2 NONE NONE NONE NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm % ppm % ppm KOH/g scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D8045 Method *Visual *Visual *Visual *Visual *Visual *Visual	>60 >20 >.1 >1000 Iimit/base Iimit/base NONE NONE NONE NONE NONE NONE NONE	10 current <1 1 <1 0.005 54 current 0.181 current NONE NONE NONE NONE NONE NONE NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 NONE NONE NONE NONE NONE NONE NONE NON	2 7 history2 0 0 0 0 0 0 0 0 0 0 0 1 5.7 history2 0.042 history2 0.042 NONE NONE NONE NONE NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm % ppm % ppm % rion x scalar scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6	>60 >20 >.1 >1000 Iimit/base Iimit/base Iimit/base NONE NONE NONE NONE NONE NONE NONE NON	10 current <1 1 <1 0.005 54 current 0.181 0.181 Current NONE NONE NONE NONE NONE NONE NONE NONE NONE	5 19 history1 0 0 1 0.007 72.5 history1 0.043 history1 0.043 NONE NONE NONE NONE NONE NONE NONE NONE	2 7 history2 0 0 0 0 0.002 15.7 history2 0.042 NONE NONE NONE NONE NONE NONE NONE NON



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