PROBLEM SUMMARY





Machine Id **2570** Component

3 Hoist

BELRAY 100 EP GEAR OIL 680 (--- GAL)

COMPONENT CONDITION SUMMARY



Aluminum (ppm)



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>20	<u> </u>	27	27

Customer Id: CANESTSK Sample No.: BR0000775 Lab Number: 02585943 Test Package: IND 1



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 <u>Kevin.Marson@wearcheck.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED A				
Action	Status	Date	Done By	Description
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.
Resample			?	We recommend an early resample to monitor this condition.
Contact Required			?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert			?	NOTE: We recommend using IND 2 test kits,
Information Required			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS

25 Apr 2023 Diag: Kevin Marson

NORMAL



NORMAL

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.All component wear rates are normal. There is no indication of any contamination in the component(unconfirmed). The condition of the oil is acceptable for the time in service (unconfirmed).



22 Sep 2022 Diag: Kevin Marson

02 May 2022 Diag: Kevin Marson

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.All component wear rates are normal. There is no indication of any contamination in the component(unconfirmed). The condition of the oil is acceptable for the time in service (unconfirmed).





Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.All component wear rates are normal. There is no indication of any contamination in the component(unconfirmed). The condition of the oil is acceptable for the time in service (unconfirmed).





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 2570 Component 3 Hoist Fluid BELRAY 100 EP GEAR OIL 680 (--- GAL)

DIAGNOSIS

Recommendation

A Wear

Contamination

Fluid Condition

DIAGNOSIS	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
A Recommendation	Sample Number		Client Info		BR0000775	BR0000627	BR0000687
We recommend that you drain the oil from the	Sample Date		Client Info		12 Sep 2023	25 Apr 2023	22 Sep 2022
component if this has not already been done. We	Machine Age	hrs	Client Info		0	0	0
recommend an early resample to monitor this	Oil Age	hrs	Client Info		0	0	0
condition. NOTE: Please provide information	Oil Changed		Client Info		N/A	N/A	N/A
rating with next sample. Please contact your	Sample Status				ABNORMAL	NORMAL	NORMAL
representative for information regarding the proper sampling kits for your service NOTE: We	WEAR METALS		method	limit/base	current	history1	history2
recommend using IND 2 test kits, this testkit	PQ		ASTM D8184*		186	1	0
includes Particle Count to determine the ISO	Iron	mag	ASTM D5185(m)	>20	A 209	27	27
cleanliness of the fluid. this testkit includes AN to	Chromium	ppm	ASTM D5185(m)	>20	2	0	0
determine the suitability of the oil for continued use.	Nickel	ppm	ASTM D5185(m)	>20	2	<1	<1
📥 Wear	Titanium	ppm	ASTM D5185(m)	220	- <1	<1	<1
Iron ppm levels are abnormal. The low ferrous	Silver	ppm	ASTM D5185(m)		0	0	0
density (PQ) index indicates the wear metal levels	Aluminum	ppm	ASTM D5185(m)	>20	150	117	93
	Lead	ppm	ASTM D5185(m)	>20	3	2	2
Contamination	Copper	ppm	ASTM D5185(m)	>20	29	23	16
I here is no indication of any contamination in the	Tin	ppm	ASTM D5185(m)	>20	0	0	0
component(uncommed).	Antimony	ppm	ASTM D5185(m)	220	1084	1258	1073
Fluid Condition	Vanadium	ppm	ASTM D5185(m)		0	0	0
The oil is no longer serviceable as a result of the	Bervllium	ppm	ASTM D5185(m)		0	0	0
abilitinal allu/of severe wear.	Cadmium	ppm	ASTM D5185(m)		0	0	0
	oddinidini	ppm	/101111 D0100(11)		U	0	Ũ
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185(m)		1	<1	<1
	Barium	ppm	ASTM D5185(m)		1	<1	0
	Molybdenum	ppm	ASTM D5185(m)		294	84	104
	Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)		294 2	84 <1	104 <1
	Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		294 2 4	84 <1 1	104 <1 1
	Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		294 2 4 38	84 <1 1 13	104 <1 1 15
	Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		294 2 4 38 608	84 <1 1 13 499	104 <1 1 15 618
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		294 2 4 38 608 27	84 <1 13 499 19	104 <1 1 15 618 16
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		294 2 4 38 608 27 10657	84 <1 1 13 499 19 11528	104 <1 15 618 16 10802
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		294 2 4 38 608 27 10657 <1	84 <1 13 499 19 11528 <1	104 <1 1 15 618 16 10802 <1
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	294 2 4 38 608 27 10657 <1 current	84 <1 1 13 499 19 11528 <1 history1	104 <1 1 15 618 16 10802 <1 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) MASTM D5185(m) ASTM D5185(m)	limit/base >15	294 2 4 38 608 27 10657 <1 current 71	84 <1 1 13 499 19 11528 <1 history1 43	104 <1 1 15 618 16 10802 <1 history2 32
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) MASTM D5185(m) ASTM D5185(m)	limit/base	294 2 4 38 608 27 10657 <1 current 71 7	84 <1 1 13 499 19 11528 <1 history1 43 3	104 <1 1 15 618 16 10802 <1 history2 32 3
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20	294 2 4 38 608 27 10657 <1 current 71 7 2	84 <1 1 13 499 19 11528 <1 history1 43 3 <1	104 <1 1 15 618 16 10802 <1 history2 32 3 3 <1
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base	294 2 4 38 608 27 10657 <1 current 71 7 2 current	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Chisual*	limit/base >15 >20 limit/base NONE	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual*	limit/base >15 >20 limit/base NONE NONE	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE NONE	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE NONE NONE
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE NONE NONE NONE	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE NONE	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE NONE NONE NONE
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE NONE NONE	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE NONE NONE NONE NONE	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE NONE NONE	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE NONE NONE NONE NONE NONE
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE	294 2 4 38 608 27 10657 <1 current 71 7 2 current 7 2 kone NONE NONE NONE NONE NONE	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE NONE NONE NONE NONE	104 <1 1 15 618 16 10802 <1 history2 32 3 3 <1 history2 NONE NONE NONE NONE NONE NONE NONE NON
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual* Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE NONE NONE NONE NONE NONE NONE	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE NONE NONE NONE NONE NONE NONE	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE NONE NONE NONE NONE NONE NONE NONE NONE
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual* Visual* Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	294 2 4 38 608 27 10657 <1 current 71 7 2 current 7 2 current NONE NONE NONE NONE NONE NONE NONE NON	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE NONE NONE NONE NONE NONE NONE NO	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 NONE NONE NONE NONE NONE NONE NONE NON
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE NONE NONE NONE NONE NONE NONE NON	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 kistory1 VLITE NONE NONE NONE NONE NONE NONE NONE NO	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE NORML
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual*	limit/base >15 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	294 2 4 38 608 27 10657 <1 current 71 7 2 current NONE NONE NONE NONE NONE NONE NONE NON	84 <1 1 13 499 19 11528 <1 history1 43 3 <1 history1 VLITE NONE NONE NONE NONE NONE NONE NONE NO	104 <1 1 15 618 16 10802 <1 history2 32 3 <1 history2 NONE NORE NE NE NE NE NE NE NE NE NE N



OIL ANALYSIS REPORT

