

Sample Rating Trend ISO

Machine Id HYD PUMP Component Hydraulic System

Fluid
{not provided} (--- QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	<u> </u>	▲ 39662	
Particles >6µm	ASTM D7647	>1300	<u> </u>	A 2926	
Particles >14µm	ASTM D7647	>160	<u> </u>	1 76	
Particles >21µm	ASTM D7647	>40	<u> </u>	<u> </u>	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<u> </u>	<u> </u>	

Customer Id: BARGREKS Sample No.: IB0000326 Lab Number: 06016343 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Filter			?	We recommend you service the filters on this component.		

HISTORICAL DIAGNOSIS

11 Nov 2018 Diag: Jonathan Hester



We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



08 Nov 2016 Diag: Jonathan Hester

VIS DEBRIS



We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **HYD PUMP** Component

Hydraulic System {not provided} (--- QTS)

DIAGNOSIS

A Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IB0000326	WCI2327494	WCI2288417
Sample Date		Client Info		15 Nov 2023	11 Nov 2018	08 Nov 2016
Machine Age	yrs	Client Info		0	0	18
Oil Age	yrs	Client Info		0	3	18
Oil Changed		Client Info		N/A	N/A	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	7	6	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>20	0	2	0
Copper	ppm	ASTM D5185m	>20	12	7	4
Tin	ppm	ASTM D5185m	>20	<1	0	<1
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	maa	ASTM D5185m		0	0	0
	le le			•	0	0
ADDITIVES	hh	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 60	history1 67	history2 74
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 60 0	history1 67 0	history2 74 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3	history1 67 0 3	history2 74 0 1
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0	67 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0 22	67 67 0 3 <1 20	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0 22 2205	history1 67 0 3 <1 20 2400	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0 22 2205 865	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0 22 2205 865 996	history1 67 0 3 <1 20 2400 904 1038	history2 74 0 1 <1 14 2438 916 1005
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0 22 2205 865 996 3517	history1 67 0 3 <1 20 2400 904 1038 2876	history2 74 0 1 <1 14 2438 916 1005 3872
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 60 0 3 0 22 2205 865 996 3517 current	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base limit/base >15	current 60 0 3 0 22 2205 865 996 3517 current 15	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base limit/base >15	current 60 0 3 0 22 2205 865 996 3517 current 15 0	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6	history1 67 0 3 <1 20 2400 904 1038 2876 history1 10 2 5	history2 74 0 1 <1 14 2438 916 1005 3872 history2 10 2 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base limit/base >15 >20 limit/base	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6 current	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base limit/base >15 >20 limit/base >5000	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6 current 25 26189	 history1 67 0 3 <1 20 2400 904 1038 2876 history1 10 2 5 history1 ▲ 39662 	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6 current 25 6 current 6 current 6 current 6 current	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6 current 25 60 60 60 60 60 0 6 0 6 0 6 00 6 00 1060	 history1 67 0 3 <1 20 2400 904 1038 2876 history1 10 2 5 history1 39662 39662 2926 176 	history2 74 0 1 <1 14 2438 916 1005 3872 history2 10 2 history2 10 2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base limit/base >15 >20 limit/base >5000 >1300 >160 >40	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6 current 15 0 6 current 15 0 6 current 1060 1060 221	history1 67 0 3 <1	history2 74 0 1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	current 60 0 3 0 22 2205 865 996 3517 current 15 0 6 current 1060 221 5	history1 67 0 3 <1 20 2400 904 1038 2876 history1 10 2 5 history1 <p< td=""><td>history2 74 0 1 <1</td> 14 2438 916 1005 3872 history2 10 2 history2 10 2 history2 </p<>	history2 74 0 1 <1

ISO 4406 (c) >19/17/14 **22/20/17**

Oil Cleanliness

22/19/15



OIL ANALYSIS REPORT







FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.98	0.842	1.39
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	🔺 MODER	🔺 MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		52.0	55.34	51.73
SAMPLE IMAGES	;	method	limit/base	current	history1	history2





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)



Bottom

Certificate L2367

Contact/Location: ADAM HOFFMAN - BARGREKS

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